the exchange value of the rupee to 1*s.* 4*d.*, and then introduce a gold standard (though not necessarily a gold currency) at the rate of Rs. 15 = £1. This policy has been completely successful. From 1899 onwards the value of the rupee has been maintained, with insignificant fluctuations, at the proposed rate of 1*s.* 4*d.*; and consequently since that date three rupees have been equivalent to two rupees before 1873. For the intermediate period, between 1873 and 1899, it is manifestly impossible to adopt any fixed sterling value for a constantly changing rupee. But since 1899, if it is desired to convert rupees into sterling, not only must the final cipher be struck off (as before 1873), but also one-third must be subtracted from the result. Thus Rs. 1,000 = £100 − $\frac{1}{3}$ = (about) £67.

Another matter in connexion with the expression of money statements in terms of rupees requires to be explained. The method of numerical notation in India differs from that which prevails throughout Europe. Large numbers are not punctuated in hundreds of thousands and millions, but in lakhs and crores. A lakh is one hundred thousand (written out as 1,00,000), and a crore is one hundred lakhs or ten millions (written out as 1,00,00,000). Consequently, according to the exchange value of the rupee, a lakh of rupees (Rs. 1,00,000) may be read as the equivalent of £10,000 before 1873, and as the equivalent of (about) £6,667 after 1899; while a crore of rupees (Rs. 1,00,00,000) may similarly be read as the equivalent of £1,000,000 before 1873, and as the equivalent of (about) £666,667 after 1899.

Finally, it should be mentioned that the rupee is divided into 16 annas, a fraction commonly used for many purposes by both natives and Europeans. The anna was formerly reckoned as 1½*d.*; it may now be considered as exactly corresponding to 1*d.* The anna is again subdivided into 12 pies.

The various systems of weights used in India combine uniformity of scale with immense variations in the weight of units. The scale used generally throughout Northern India, and less commonly in Madras and Bombay, may be thus expressed: one maund = 40 seers; one seer = 16 chittaks or 80 tolas. The actual weight of a seer varies greatly from District to District, and even from village to village; but in the standard system the tola is 180 grains Troy (the exact weight of the rupee), and the seer thus weighs 2·057 lb., and the maund 82·28 lb. This standard is used in official reports and throughout the *Gazetteer*.

For calculating retail prices, the universal custom in India is to express them in terms of seers to the rupee. Thus, when prices change, what varies is not the amount of money to be paid for the

same quantity, but the quantity to be obtained for the same amount of money. In other words, prices in India are quantity prices, not money prices. When the figure of quantity goes up, this of course means that the price has gone down, which is at first sight perplexing to an English reader. It may, however, be mentioned that quantity prices are not altogether unknown in England, especially at small shops, where pennyworths of many groceries can be bought. Eggs, likewise, are commonly sold at a varying number for the shilling. If it be desired to convert quantity prices from Indian into English denominations without having recourse to money prices (which would often be misleading), the following scale may be adopted—based upon the assumptions that a seer is exactly 2 lb., and that the value of the rupee remains constant at 1*s.* 4*d.*: 1 seer per rupee = (about) 3 lb. for 2*s.*; 2 seers per rupee = (about) 6 lb. for 2*s.*; and so on.

The name of the unit for square measurement in India generally is the *bīgha*, which varies greatly in different parts of the country. But areas have always been expressed throughout the *Gazetteer* either in square miles or in acres.

MAP

IMPERIAL GAZETTEER OF INDIA

VOLUME XXI

Pushkar.—Town, lake, and place of pilgrimage in Ajmer District, Rājputāna, situated in 26° 29′ N. and 74° 33′ E., 2,389 feet above sea-level. Population (1901), 3,831, nearly all Hindus. Pushkar is said commonly (but erroneously) to be the only town in India that contains a temple dedicated to Brahmā, who here performed the sacrifice known as *yajna*, whereby the lake of Pushkar became so holy that the greatest sinner, by bathing in it, earns the delights of Paradise. The town contains five principal temples, dedicated to Brahmā, Sāvitri, Badri Nārāyan, Varha, and Siva Atmateswara; but they are of modern construction, as the earlier buildings suffered severely under Aurangzeb. Bathing *ghāts* line the lake, and many of the princely families of Rājputāna have houses round the margin. No living thing may be put to death within the limits of the town. A great fair is held in October and November, attended by about 100,000 pilgrims, who bathe in the sacred lake. At this time there is a large trade in horses, camels, bullocks, and miscellaneous merchandise.

Pushpagiri.—Village and hill on the Madras-Mysore border. *See* SUBRAHMANYA.

Puttūr Subdivision.—Subdivision of South Kanara District, Madras, consisting of the UPPINANGADI and KĀSARAGOD *tāluks*.

Puttūr Tahsīl.—*Zamīndāri tahsīl* in North Arcot District, Madras, consisting of the northern half of the KĀRVETNAGAR *zamīndāri*. Area, 542 square miles; population in 1901, 170,235, compared with 155,546 in 1891. It contains 340 villages, the head-quarters being PUTTŪR.

Puttūr Village.—Head-quarters of the Uppinangadi subdivision and *tāluk* of South Kanara District, Madras, situated in 12° 46′ N. and 75° 12′ E. Population (1901), 3,999. The surrounding country belonged to Coorg, and after the Coorg rebellion of 1837 troops were stationed here till 1860.

Pyāpalli.—Town in the Pattikonda *tāluk* of Kurnool District, Madras, situated in 15° 14′ N. and 77° 44′ E., at the foot of a granite hill, on the trunk road from Bangalore and Gooty to Hyderābād.

This is the highest town in the District, being about 1,750 feet above sea-level, and is probably the healthiest station. Population (1901), 3,666. It is the head-quarters of a deputy-*tahsīldār*. There is a good travellers' bungalow situated in a fine tope planted by Mr. Robertson, a former Collector. The representatives of the ancient *poligārs* who built the town and fort still reside here, and draw pensions from Government.

Pyapon District.—A sea-board delta District in the Irrawaddy Division of Lower Burma, lying along the Gulf of Martaban, between 15° 40′ and 16° 41′ N. and 95° 6′ and 96° 6′ E., with an area of 2,137 square miles. In shape it is a truncated triangle, the sides being the Irrawaddy on the west and the To or China Bakīr river on the east, while the base is formed by the sea-coast, which has a general south-west to north-east direction. It is bounded on the east by Hanthawaddy District; on the west by Myaungmya; and on the north by Ma-ubin. The entire area consists of a vast plain, intersected by tidal creeks and waterways. With the exception of some very small areas called *kondans*, the whole of this level is subject to inundation at high spring-tides, and a good deal is submerged throughout the monsoon period. The *kondans* are narrow strips of land, about 4 to 10 feet above the level of the plain, on which the soil is dry and sandy. They are supposed to be the remnants of old sea-beaches. The rivers are all tidal, and form the south-eastern portion of the network of waters by which the Irrawaddy finds its way into the Gulf of Martaban. That river, running southwards to the sea, bounds the District on the west, except in one place where Myaungmya District extends east of the stream. It is navigable by river craft at all seasons of the year. The To river (or China Bakīr) takes off from the Irrawaddy in Ma-ubin District, and runs in a south-easterly direction, separating Pyapon from Hanthawaddy. Four miles below Dedaye it spreads into a secondary delta, its two western branches being called the Donyan and Thandi rivers, both wide but of little importance. Into the To river itself (the eastern branch), at the extreme south-east corner of the District, flows the Thakutpin or Bassein creek, a tidal waterway which gives river communication with Rangoon. In Ma-ubin District, about 20 miles below the point where the To river leaves the Irrawaddy, the Kyaiklat river branches off from the To, and flows in a southerly direction, past Kyaiklat and Pyapon, into the sea. In the latter part of its course it is called the Pyapon river. A few miles below Kyaiklat the Gonnyindan stream takes off from the Kyaiklat river, and flows first south-west as far as Bogale, where it is connected by various creeks with the Irrawaddy, and thence almost due south into the sea at Pyindaye, under the name of the Dala river. Its lower reaches are separated

Physical aspects.

from those of the Irrawaddy by two large islands which are covered with fuel reserves. Besides these more important channels, the District possesses countless tidal creeks—the Uyin, Podok, Wayakaing, and others—which convert it into a maze of muddy channels.

The geological and botanical features of Pyapon are the same as are noticed under HANTHAWADDY DISTRICT. The soil is mainly alluvium and the jungle vegetation is largely swamp.

The tiger and the elephant are practically confined to the uncleared areas in the south, where there are also herds of wild buffalo, wild hog, and hog deer. Crocodiles are not uncommon in the creeks, and turtles abound at certain seasons of the year on the sandbanks along the southern coast.

The climate, though damp and depressing, is healthy, and the proximity of the sea renders the temperature equable. The average minimum temperature throughout the year is about 65°, the average maximum 95°, and the average mean about 80°. One of the results of the proximity of the Gulf of Martaban is that the winds are decidedly stronger than farther inland. The country enjoys a regular and copious rainfall, rather in excess of the mean for the delta. The annual average is about 95 inches, decreasing towards the north in the areas farthest removed from the coast.

History.

The District as at present constituted is of modern creation, having been taken in 1903 from Thongwa (now Ma-ubin) District, which itself only dates back to 1875. Until recent times the country was a stretch of unreclaimed jungle, the only indications of an earlier civilization being in the south-west. The village of Eya, from which the Irrawaddy takes its name, is now an insignificant hamlet, though it must have been a place of no little repute in bygone days. Of historical remains there are practically none. The most ancient and revered pagoda is that known as the Tawkyat at Dedaye, and even this is supposed to be not more than a hundred years old.

Population.

Owing to various minor alterations in the township boundaries, exact figures for the population of the area now composing the District are not obtainable for past years. In 1881 the whole District formed little more than a single township of Thongwa, with a population of about 97,000. In 1891 this total had increased to about 139,000, and in 1901 to 226,443, a rate of growth exceptional even for Burma.

The distribution according to the Census of 1901 is shown in the table on the next page.

The only towns are PYAPON, the head-quarters of the District, KYAIKLAT, and DEDAYE. The increase in the northern part has been normal; but in the two southern townships the growth of population

has been extraordinarily rapid, reaching 350 per cent. in the sea-board township of Bogale. Its rapidity is due to immigration into the low-lying waste areas, where fresh land is constantly being brought under the plough. The influx has been mainly from Hanthawaddy and Henzada in Lower Burma, and from Minbu, Myingyan, and Mandalay in Upper Burma; but Indian immigrants are also numerous. Though the inland portions are densely populated, the southern tracts washed by the sea have comparatively few inhabitants, large areas in fact being absolutely uninhabited. Burmese is spoken by 200,000 of the inhabitants, and Karen by 15,000.

Township.	Area in square miles.	Number of		Population in 1901.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Pyapon	431	1	157	43,922	102	+ 80	16,598
Bogale	1,057	...	272	43,756	41	+350	25,680
Kyaiklat	277	1	394	71,770	259	+ 51	20,100
Dedaye	372	1	312	66,995	180	+ 18	19,552
District total	2,137	3	1,135	226,443	106	+ 63	81,930

Burmans form 88 per cent. of the total population. Karens, numbering about 15,000, inhabit the northern portions, especially the Kyaiklat township. The Indian population is made up of about 2,100 Musalmāns and 6,600 Hindus, and is increasing steadily. The number of persons dependent upon agriculture is 74 per cent. of the total population. The number of fishermen is large.

Till recently there have been no Christian missionaries at work, though a considerable body of Karen converts live in the Kyaiklat and Bogale townships. The number of Christians in 1901 was about 4,900. Of these 4,800 were native Christians, most of whom were Baptists.

Agriculture.

The soil resembles that common to the other lower delta Districts of the Province. It is a stiff homogeneous clay, deficient in lime, but admirably adapted to rice cultivation. The greater part of the cultivated area is inundated, and a considerable portion is but seldom systematically ploughed, the long *kaing* grass with which it is covered being cut down and burnt, and the rice sown broadcast. As the rivers deposit large quantities of silt, the land in the immediate neighbourhood of their channels is at a higher level than the interior. During the rains the country consists to a large extent of vast lakes, in which patches of higher ground appear as islands. Large areas of land between the main rivers lie too low for rice cultivation, and remain untilled swamps.

The main agricultural statistics for 1903–4 are as follows, areas being shown in square miles:—

Township.	Total area.	Cultivated.	Forests.
Pyapon	431	191	558
Bogale	1,057	155	
Kyaiklat	277	219	
Dedaye	372	270	
Total	2,137	835	558

Accurate statistics of the area cultivated in years previous to 1903–4 are not available. It is estimated that in 1891 about 350 square miles were cropped, and this area had increased to 769 square miles by 1901. In 1903–4 rice covered 822 square miles of the total. None but *kaukkyi* (wet-season) rice can be grown. A certain amount of garden cultivation is carried on near the river-banks on the richer soil in the northern parts of the District, in Kyaiklat and Dedaye. The gardens cover 3,100 acres, the greater part being plantains, though coco-nut and betel-nut palms are also grown. The *dani* palm is cultivated along the sides of the creeks, in the southern parts of the District especially, covering 5,000 acres. The cultivation of tobacco is insignificant.

Little is done to improve the systems of cultivation. Loans are not required for agricultural purposes, although they are taken by the cultivating classes from money-lenders for all sorts of extravagances, with the result that land is gradually passing into the hands of non-resident landlords. The large area of cultivable land still unoccupied and the scarcity of labour keep rents low at present, but the time is not far off when these conditions will be less favourable.

Domestic animals are not bred in any number: they are usually imported, largely from Upper Burma. The moist climate and the swampy character of the land cause buffaloes to be used in preference to kine, as a rule. Goats are few, and ponies are rarely kept, owing to the poverty of land communications.

Fisheries.

The numerous fisheries, which have been described in considerable detail in a recent report by Major F. D. Maxwell, yielded a revenue of more than $1\frac{3}{4}$ lakhs in 1903–4. The most important of the inland fisheries lie in the north of the District, in the area enclosed by the To, the Kyaiklat, and the Podok streams. A considerable portion of the out-turn leaves Pyapon in the shape of *ngapi* (fish-paste). Turtle-beds abound along the sea-coast in the south, and yield large numbers of turtle-eggs annually. The variety of turtle found is that known as the loggerhead; the green turtle does not frequent the Pyapon banks, of which the two best known are the Thaungkadun and the Kaingthaung.

A considerable stretch of 'reserved' forests occupies 558 square miles in the southern portion of the Bogale township. The forests have been reserved chiefly as a precaution against scarcity of fuel in the future; they are tidal and contain no timber trees of any value. The chief forest trees found in them are the *kyanan* (*Xylocarpus Granatum*), the *kanazo* (*Heritiera minor*), the *kanbala* (*Sonneratia apetala*), the *pyu* (*Rhizophora conjugata*), the *laba* (*Bignonia*), and the *tamu* (*Sonneratia acida*), all tropical mangrove forest trees. The *thinbaung* (*Phoenix paludosa*), a small palm, grows freely in the District, and is largely used for building purposes. On the coast a common species is the *tayaw* (*Excoecaria Agallocha*). The *dani* palm (*Nipa fruticans*) and the *danon* (*Calamus arborescens*) abound, and are extensively used for thatching. The receipts from the extraction of cane and other minor forest products amounted in 1903–4 to Rs. 12,700.

Forests.

Within recent years attempts have been made to establish rice-mills in the District. At present five are working in the neighbourhood of the principal towns, but it remains to be seen whether they will prove remunerative. Besides rice-milling and the preparation of *ngapi* no manufactures of importance are carried on, and no arts are practised.

Trade and communications.

Paddy and *ngapi* are exported, the first mainly to Rangoon, the latter principally to Upper Burma. Horns, hides, and firewood are sent to Rangoon, the latter in very considerable quantities. The imports comprise the usual necessaries of an agricultural population—silk and cotton goods, kerosene oil, sugar, salt, jaggery, pickled tea, areca-nuts, hardware, and crockery. The trade is all carried by water, and a large share of it is in the hands of the Irrawaddy Flotilla Company.

The network of rivers and creeks spreading over the District gives ample means of communication, both internal and external. Outside the towns there are no roads, but a beginning will shortly be made in road-making. Launches ply daily between Rangoon and Pyapon via Dedaye and Kyaiklat, between Yandoon (in Ma-ubin District) and Pyapon via Ma-ubin and Kyaiklat, and between Kyaiklat and Bogale via Pyapon. Bi-weekly steamers run from Rangoon to Moulmeingyun in Myaungmya District through Dedaye, Kyaiklat, Pyapon, and Bogale, as well as from Rangoon to Kyaikpi, in Myaungmya District, and to Pyindaye in the dry season. All these services are maintained by the Irrawaddy Flotilla Company. The waterways swarm with native craft, and at most of the principal towns ferries across the rivers are controlled by Government.

The District is divided into two subdivisions: Pyapon, comprising the PYAPON and BOGALE townships; and Kyaiklat, comprising the

KYAIKLAT and DEDAYE townships. These are staffed by the usual executive officers, under whom are 393 village headmen and 4 circle *thugyis*. For public works purposes the District forms a subdivision of the Myaungmya division, which also includes Ma-ubin and Myaungmya Districts. The forests lie within the Henzada-Thongwa Forest division, the head-quarters of which are at Henzada.

Administration.

Pyapon is in the jurisdiction of the Judge of the Delta Division, who tries sessions cases. The civil work of the District is dealt with by a District Judge, who has his head-quarters at Myaungmya, and also has jurisdiction in Ma-ubin District. Two officers have been appointed judges of the Bogale-*cum*-Pyapon and the Kyaiklat-*cum*-Dedaye township courts respectively, to relieve the township officers of civil work. Otherwise the local executive officers preside over their respective courts, civil and criminal. As in other parts of the delta, crime is considerable, burglaries, thefts, and serious assaults being common. Violent crime, such as dacoity and robbery, is more rife than in the non-delta Districts, but shows signs of diminution. Cattle-thieving, an important profession in the Districts north and east of the delta, is not common, the reason being that the conformation of the country does not lend itself to the operations of the cattle-lifter. In a large number of cases of serious hurt clasp-knives are used, and special efforts are being made to bring about a diminution of this form of crime.

Under Burmese rule the method of assessment was, as in the rest of the delta Districts, based on the number of yoke of plough animals used by the cultivator, amounting roughly to half the gross out-turn. In 1868 acre rates were introduced, varying from R. 1 to Rs. 2-4 per acre; and these continued in force till 1891-2, when the greater part of the District was brought under settlement. Nearly the whole of the Bogale township was omitted from this settlement, the few cultivated patches in the huge jungle spreading over this township continuing to be taxed at a uniform rate of Rs. 2-4 per acre. Over the rest of the District rice land was assessed at rates varying from Rs. 1-12 on the poorest inundated lands to Rs. 3 on lands which were always certain of good crops, the average being Rs. 2-6. Miscellaneous crops were taxed at the uniform rate of Rs. 2, and orchards at a uniform rate of Rs. 3 per acre, except in a few restricted localities where the rate was only Rs. 2-4. Finally, in 1901-2 the Bogale township was brought under settlement, and the following rates were fixed: on rice land, from Rs. 2-8 to Rs. 5 per acre; on miscellaneous cultivation, Rs. 2-4; on orchards, Rs. 2-4; on betel-vines, Rs. 10; on *dani* palms, Rs. 5 per acre.

Rapid as has been the growth of population and cultivation, it has been slower than that of the revenue. The following table

shows, in thousands of rupees, the development of the revenue since 1880–1:—

	1880–1.	1890–1.	1900–1.	1903–4.
Land revenue . .	2,00	5,00	12,00	12,27
Total revenue . .	7,00	12,00	19,00	20,94

The total revenue in 1903–4 included Rs. 2,11,000 from capitation tax, Rs. 1,86,000 from fisheries, and no less than Rs. 2,86,000 from opium and excise.

The income of the District cess fund, derived mainly from a 10 per cent. cess on the land revenue, and applied to various local needs, amounted to 1·4 lakhs in 1903–4. The only municipality is PYAPON. KYAIKLAT is at present under a town committee, but is shortly to be constituted a municipality.

The District Superintendent of police has the services of two Assistant Superintendents, who are in charge of the subdivisions of Kyaiklat and Pyapon. Under these officers are 4 inspectors, 6 head constables, 26 sergeants, and 134 constables. No mounted men are maintained, but 2 sergeants and 12 men are employed in boats. The civil police are distributed in 5 police stations and 4 outposts, as well as at head-quarters. The military police number 150, of whom 80 are at head-quarters, 25 at Kyaiklat, 15 each at Dedaye and Bogale, and 15 at Kyonmange on the To river, about 9 or 10 miles above Dedaye. No jail has been built at Pyapon, and prisoners are sent on conviction to the Ma-ubin jail.

The percentages of males and females able to read and write in 1901 were returned at 52 and 9 respectively, the proportion for both sexes being 36; but in reality the condition of education is decidedly backward, and the people are apathetic. The weakness of the schools is particularly marked in the case of the monastic seminaries, and is attributed to the loss of influence due to the deterioration in character of the *pongyis*. The lay schools are at present somewhat disorganized, but the recent improvement which has taken place in the position of lay teachers will, it is hoped, bring about an improvement in this class of education. The most important Buddhist lay schools are at Pyapon and Kyaiklat; and the most advanced monastic seminaries are those at Bogale, Dedaye, Thegon, and Kyaiklat, which teach up to the middle school standards. In 1904 the District contained 6 secondary, 101 primary, and 180 elementary (private) schools, with an attendance of 5,111 boys and 991 girls. The public expenditure on education amounted to only Rs. 7,000. This total was made up of Rs. 4,800 from the District cess fund and Rs. 2,200 from the Pyapon town fund.

There are three hospitals and a dispensary, with accommodation for

46 in-patients. In 1903 the number of cases treated was 18,733, including 692 in-patients, and 339 operations were performed. The income amounted to Rs. 10,500, all but Rs. 500 from subscriptions being derived from the District cess fund.

In 1903-4 the number of successful vaccinations was 1,883, representing 9 per 1,000 of the population.

[H. M. S. Mathews, *Settlement Report* (1893); Major F. D. Maxwell, *Report on Inland and Sea Fisheries* (1904).]

Pyapon Subdivision.—South-western subdivision of Pyapon District, Lower Burma, comprising the PYAPON and BOGALE townships.

Pyapon Township.—Township of Pyapon District, Lower Burma, lying between 15° 47′ and 10° 25′ N. and 95° 34′ and 95° 47′ E., with an area of 431 square miles. It is bounded on the north by the Gonnyindan river; on the east by the Pyapon river; on the south by the sea; and on the west by tidal waterways which separate it from the Bogale township. It is flat and typically deltaic throughout. The population increased by 80 per cent. during the decade ending 1901, at the close of which period it had reached a total of 43,922, distributed in one town, PYAPON (population, 5,883), the head-quarters of the District and township, and 157 villages. In 1903-4 the area cultivated was 191 square miles, as compared with 56 square miles in 1891. The land revenue was Rs. 3,75,000.

Pyapon Town.—Head-quarters of the District of the same name in Lower Burma, situated in 16° 18′ N. and 95° 43′ E., in low-lying country on the right bank of the Pyapon river, one of the numerous outlets of the Irrawaddy, about 12 miles from the coast. Population (1901), 5,883. It was formerly the head-quarters of a subdivision, and did not become the District head-quarters till 1903. A fair proportion of the inhabitants are engaged in the fishing industry. Pyapon stands very little above the level of the river, which here runs between muddy banks. Its affairs were managed by a town committee from 1899 to 1905, when it was constituted a municipality. The revenue of the town fund in 1903-4 was Rs. 30,000, and the expenditure was Rs. 33,000, half of which was devoted to public works. Pyapon contains the usual public buildings, a hospital with 18 beds, and several schools.

Pyawbwe.—Northern township of Yamethin District, Upper Burma, lying almost entirely east of the railway, between 20° 30′ and 20° 44′ N. and 95° 59′ and 96° 32′ E., with an area of 324 square miles. The population was 41,536 in 1891, and 42,495 in 1901, distributed in 211 villages. The head-quarters are at Pyawbwe (population, 6,379) on the railway. The greater part of the township is level and dry, but in the east on the borders of the Shan States there are hills. The township contained 58 square miles under cultivation in 1903-4, and the land revenue and *thathameda* amounted to Rs. 78,000.

Pyindaye.—Old township in Pyapon District, Lower Burma. *See* BOGALE.

Pyinmanā Subdivision.—Southern subdivision of Yamethin District, Upper Burma, comprising the PYINMANĀ and LEWE townships.

Pyinmanā Township.—Township occupying the centre and south-east of Yamethin District, Upper Burma, and lying between 19° 27′ and 20° 21′ N. and 95° 43′ and 96° 39′ E., with an area of 1,474 square miles. The population increased from 46,021 in 1891 to 61,578 in 1901, distributed in one town, PYINMANĀ (population, 14,388), the head-quarters, and 308 villages. In the hills in the south-east is a Karen colony numbering over 2,000. The township may be described as one large forest, with the exception of the immediate surroundings of Pyinmanā town, and small patches of cultivation near the villages and streams. The rainfall is heavy, compared with that of the northern subdivision. The township contained 76 square miles under cultivation in 1903–4, and the land revenue and *thathameda* amounted to Rs. 1,58,000.

Pyinmanā Town.—Head-quarters of the subdivision of the same name in Yamethin District, Upper Burma, situated in 19° 44′ N. and 96° 14′ E., on the Ngalaik *chaung* and the Mandalay-Rangoon railway, 161 miles from Mandalay, 226 from Rangoon, and 49 from the District head-quarters at Yamethin. Under Burmese rule the town was called Ningyan. After annexation dacoities were frequent in the neighbourhood; in fact for several months dacoits, assisted by abundant cover and the deep mud that lay everywhere, practically held part of the urban area. The town is built on either side of the railway and south of the Ngalaik *chaung*, and is well provided with roads. The population was 12,926 in 1891, and 14,388 in 1901, the decade having been one of material progress. The civil station is situated west of the native town, on a crescent of small stony hills encircling a prettily situated lake. From the high ground near the courthouse and club a very picturesque view is to be had of the town, half hidden in tall coco-nut palms, and, over the tree-tops, of the *taungya*-scored mountains to the east. The town owes its prosperity mainly to the teak industry. The lessees of the valuable teak forests in the neighbourhood are the Bombay-Burma Trading Corporation, which at one time had a very large number of employés at Pyinmanā. The town is a flourishing trade centre, and is noted for its pottery. The clay used in its manufacture is of a darkish grey colour, curiously mottled with rust-coloured spots, and is found on the banks of the Ngalaik *chaung*. Patches of colour are applied by rubbing the surface of the clay with pounded sulphate of copper or blue vitriol. After the final burning the parts so treated appear green on a yellow ground, a colour effect which seems to appeal to the aesthetic sense of the Burmans. The

glaze is obtained by the application of pounded slag that has been mixed with rice-water till a viscid fluid is produced.

Pyinmanā was constituted a municipality in 1888. The municipal income and expenditure during the ten years ending 1901 averaged between Rs. 36,000 and Rs. 37,000. In 1903-4 the receipts were Rs. 45,700, the principal sources being bazar fees (Rs. 30,000) and house and land tax (Rs. 8,000). The expenditure amounted to Rs. 38,300, Rs. 6,800 being devoted to conservancy, Rs. 6,600 to roads, and Rs. 4,800 to the hospital and dispensary.

Pyintha.—Hill township in the south-east corner of Mandalay District, Upper Burma, lying between 21° 42′ and 21° 57′ N. and 96° 15′ and 96° 32′ E., with an area of 190 square miles, for the most part rugged and jungle-clad. The population was 4,931 in 1891, and 4,295 in 1901, distributed in 54 villages, Pyintha (population, 235), 28 miles from Mandalay on the Lashio road, being the head-quarters. The *thathameda* collections in 1903-4 amounted to Rs. 9,000.

Pykāra.—River in the Nīlgiri District, Madras. *See* NĪLGIRIS.

Pyu Subdivision.—Subdivision of Toungoo District, Lower Burma, containing the PYU, OKTWIN, and TANTABIN townships, with head-quarters at Pyu.

Pyu Township.—South-western township of Toungoo District, Lower Burma, lying between 18° 15′ and 19° 9′ N. and 95° 48′ and 96° 41′ E., with an area of 1,589 square miles. It is a very large township, extending from the Sittang to the Pegu Yoma, and has developed at an extraordinary rate, the cropped area having increased threefold in ten years. The cultivated plain extends for from one to 15 miles west of the Sittang, and the railway to Rangoon runs through the middle of it, affording easy access to the markets. The population was 45,201 in 1891, and 85,416 in 1901 (including 6,987 Karens and 3,697 Shans), distributed in 484 villages, the head-quarters being at Pyu (population, 1,127), on the railway. The area cultivated in 1903-4 was 250 square miles, paying Rs. 3,78,000 land revenue. Owing to its unwieldy size, the township was split up in 1905 into Pyu and OKTWIN. The reduced charge has an area of 943 square miles and a population (1901) of 74,607.

Pyuntazā.—Township in Pegu District, Lower Burma, lying between 17° 37′ and 18° 23′ N. and 96° 0′ and 96° 53′ E., with an area of 1,443 square miles. The population, which numbered 23,132 in 1891, had risen in 1901 to 52,952, thus more than doubling itself during the decade. The western tracts are hilly; and, in spite of the populous nature of the flat eastern half, the average density in 1901 was only 37 persons per square mile. The head-quarters are at Pyuntazā, a village of 1,273 inhabitants (1901), on the railway which passes across the centre of the low-lying area. The total number of

villages is 232. The area cultivated in 1903–4 was 170 square miles, paying Rs. 2,58,600 land revenue.

Quetta-Pishīn.—A highland District of Baluchistān, lying between 29° 52′ and 31° 18′ N. and 66° 15′ and 67° 48′ E., with an area of 5,127 square miles. It is bounded on the north and west by Afghānistān; on the east by Zhob and Sibi Districts; and on the south by the Bolān Pass and the Mastung *niābat* of the Kalāt State.

Physical aspects.

The District consists of a series of valleys of considerable length but medium width, forming the catchment area of the Pishīn Lora, and enclosed on all sides by the mountains of the TOBA-KĀKAR and CENTRAL BRĀHUI ranges. The valleys vary in elevation from 4,500 to 5,500 feet, and the mountains from about 8,000 to 11,500 feet. On the north lie the Toba hills, containing the fine plateau of Loe Toba and Tabīna. This range sends out the Khwāja Amrān offshoot southward to form the western boundary of the District under the name of the Sarlath. On the east a barrier is formed by the mass of Zarghūn (11,738 feet), with the ranges of Takatu (11,375 feet) and Murdār (10,398 feet). Directly to the south lie the Chiltan and Mashelakh hills. Besides the PISHĪN LORA, which, with its tributaries, drains the greater part of the District, the only river of importance is the Kadanai on the north, which drains the Toba plateau and eventually joins the Helmand in Afghānistān. The District is subject to earthquakes. Severe shocks occurred in December, 1892, and in March, 1902.

Two different systems of hill ranges meet in the neighbourhood of Quetta, giving rise to a complicated geological structure. The principal rock formations belong to the Permo-Carboniferous; Upper Trias; Lias; Middle Jurassic (massive limestone); neocomian (belemnite beds); Upper Cretaceous (Dunghān); Deccan trap; middle eocene (Khojak shales, Ghāzij, and Spīntangi); oligocene (Upper Nāri); middle and upper miocene (Lower, Middle, and Upper Siwāliks); and a vast accumulation of sub-recent and recent formations.

Except parts of the Toba, Zarghūn, and Mashelakh ranges, the hills are almost entirely bare of trees. In the valleys are orchards of apricot, almond, peach, pear, pomegranate, and apple trees, protected by belts of poplar, willow, and *sinjid* (*Elaeagnus angustifolia*). The plane (*chinār*) gives grateful shade in Quetta. In spring the hill-sides become covered for a little while with irises, red and yellow tulips, and many *Astragali*. In the underground water-channels maiden-hair fern is found. The valley basins are covered with a scrub jungle of *Artemisia* and *Haloxylon Griffithii*. In parts *Tamarix gallica* covers the ground, and salsolaceous plants are frequent. The grasses are chiefly species of *Bromus*, *Poa*, and *Hordeum*. On the Khwāja

Amrān range wild rhubarb (*Rheum Emodi*) is found in years of good rainfall.

The 'reserved' forests in Zarghūn form a welcome breeding ground for mountain sheep and *mārkhor*, but elsewhere they are decreasing in numbers. The leopard is found occasionally. A few hares are met with in the valleys. Wolves sometimes cause damage to the flocks in winter, and foxes are fairly abundant. Ducks are plentiful in the irrigation tanks in Pishīn. *Chikor* and *sīsī* abound in years of good rainfall.

The climate is dry; dust-storms are common in the spring and summer months, especially in that part of the Chaman subdivision which borders on the Registān or sandy desert. The seasons are well marked, the spring commencing towards the end of March, the summer in June, the autumn in September, and the winter in December. Only in July and August is the day temperature high; the nights are always cool. The mean temperature in summer is 78° and in winter 40°. The higher elevations are covered with snow in winter, when piercing winds blowing off the hills reduce the temperature below freezing-point. The total annual rain and snowfall varies from less than 7 inches in Chaman to 10½ in Quetta. Most of it is received between December and March.

History.

In former times Pishīn was known as Fushanj and Pashang. The ancient name of Quetta was Shāl, a term by which it is still known among the people of the country, and which Rawlinson traces back to the tenth century. The District was held in turns by the Ghaznivids, Ghorids, and Mongols, and towards the end of the fifteenth century was conferred by the ruler of Herāt on Shāh Beg Arghūn, who, however, had shortly to give way before the rising power of the Mughals. The *Ain-i-Akbarī* mentions both Shāl and Pishīn as supplying military service and revenue to Akbar. From the Mughals they passed with Kandahār to the Safavids. On the rise of the Ghilzai power in Kandahār at the beginning of the eighteenth century, simultaneously with that of the Brāhuis in Kalāt, Quetta and Pishīn became the battle-ground between Afghān and Brāhui, until Nādir Shāh handed Quetta over to the Brāhuis about 1740. The Durrānis and their successors continued to hold possession of Pishīn and Shorarūd till the final transfer of these places to the British in 1879. On the advance of the Army of the Indus in 1839, Captain Bean was appointed the first Political Agent in Shāl, and the country was managed by him on behalf of Shāh Shujā-ul-mulk. In March, 1842, General England was advancing on Kandahār with treasure for General Nott when he was worsted in an encounter at Haikalzai in Pishīn, but the disgrace was wiped out at the same place a month later. The country was evacuated

in 1842 and handed over to Kalāt. After Sir Robert Sandeman's mission to Kalāt in 1876, the fort at Quetta was occupied by his escort and the country was managed on behalf of the Khān up to 1883, when it was leased to the British Government for an annual rent of Rs. 25,000. It was formed, with Pishīn and Shorarūd, into a single administrative charge in 1883. Up to 1888 Old Chaman was the most advanced post on the frontier; but, on the extension of the railroad across the Khwāja Amrān, the terminus was fixed at its present site, 7 miles from that place. The boundary with Afghānistān was finally demarcated in 1895–6.

Many mounds containing pottery are to be found throughout the District. In the Quetta *tahsīl* the most ancient *kārez* are known to the people of the country as *Gabri*, i.e. Zoroastrian. While the present arsenal at Quetta was being excavated in 1886, a bronze or copper statuette of Hercules was unearthed, which was $2\frac{1}{4}$ feet high and held in its left hand the skin of the Nemean lion.

Population. The number of towns is three, the largest being QUETTA, and of villages 329. The population was 78,662 in 1891 and 114,087 in 1901, an increase of 45 per cent. The following table gives statistics of area, &c., by *tahsīls* in 1901:—

Tahsīl.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.
Chaman	1,236	1	4	16,437	13
Pishīn	2,717	1	271	51,753	19
Quetta	540	1	47	44,835	83
Shorarūd	634	...	7	1,062	2
Total	5,127	3	329	114,087	22

More than 84 per cent. of the people are Muhammadans of the Sunni sect; Hindus number 10 per cent.; and Christians, who are chiefly Europeans, about 3 per cent. The language most widely spoken is Pashtū; Brāhui is the tongue of about 6 per cent. of the people, and a little Persian is also used. Of the indigenous population 67,600, or 78 per cent., are Afghāns, rather more than half of them being Kākars and a third Tarīns. Of the latter, the most numerous are the Abdāls, represented by the Achakzais occupying the Chaman subdivision and part of Pishīn. The Brāhuis, who live in the south of the District, form 8 per cent., and Saiyids, who are numerous in the Pishīn *tahsīl*, about 9 per cent. The indigenous population is almost entirely engaged in cultivation and flock-owning. The Afghāns of Pishīn, especially the Huramzai Saiyids, carry on a large trade in horses. Many of them have made their way as far as Australia, or are engaged in trade in parts of India.

The missions working in Quetta consist of branches of the Church Missionary Society and of the Church of England Zanāna Missionary Society. They maintain two hospitals and four schools, one of which is aided from Local funds. A mission church was opened in 1903. The efforts of the workers are principally devoted to medical aid and education, and few converts have so far been made among the people of the country.

Agriculture.

The soil in the centre of the valleys consists of fine clay and sandy beds. Along the skirts of the hills loess is found, and higher up a fringe of coarse-grained gravel. The soil of Shorarūd is impregnated with salt. At Barshor, in the Pishīn *tahsīl*, cultivation is carried on in terraced fields. Crops are assured only on lands which can be permanently irrigated. The 'dry-crop' area consists chiefly of embanked land to which flood-water is led. Irrigated land is allowed to lie fallow for one to three years, unless it can be manured; 'dry-crop' land can be cultivated every year, but more than one good crop in five years is seldom obtained. The harvest reaped in spring is sown with the help of the winter rains; the autumn harvest, which is small compared with the former, is sown in June and July.

The cultivable area in the two *tahsīls* of Quetta and Pishīn, which have been cadastrally surveyed, is 706 square miles, of which 324 are cultivated by rotation. Of this latter total, 221 square miles (68 per cent.) are permanently irrigated (*ābi*); and the remainder are either 'flood-crop' (*sailāba*) or 'dry-crop' (*khushkāba*). The area under crop in 1902–3 was 72 square miles, of which 79 per cent. was under wheat, the staple grain of the District; 4 per cent. under barley; 10 per cent. under maize and millets; 3 per cent. under green vegetables; and 4 per cent. under lucerne. Owing to the peace and protection which have followed the British occupation, cultivation has increased very largely during the past twenty-five years. Potatoes, vegetables, and lucerne are profitably cultivated; fruit orchards and vineyards are extending; and great attention is bestowed on melon growing. The cultivators eagerly avail themselves of Government loans, the amount advanced between 1897 and 1904 being 1·3 lakhs.

The short-legged breed of Kachhi cattle is imported for the plough. Transport is by camel, and these animals are used in the plough in Chaman and Pishīn. The local breed of horses is excellent, and has been much improved by the introduction of imported stallions, of which 18 are generally stationed in the District in summer. The branded mares number 256. A horse-fair and cattle-show is held at Quetta in the autumn, which is largely patronized by local breeders. Sheep imported from Siāhband in Afghānistān are much prized.

Of the total irrigated area in the *tahsīls* of Quetta and Pishīn, 14 per

cent. is supplied from Government irrigation works and 66 per cent. from 254 *kārez* or underground channels. Water is also obtained from 18 streams and 854 springs. Artesian wells number 24. The Government irrigation works are the Khushdil Khān reservoir and the Shebo canal, both situated in Pishīn. The former, which is fed by flood-water from two feeder-cuts, is capable of holding about 750 million cubic feet of water. It commands about 17,000 acres, but the average area cultivated by its aid has hitherto been only 3,300 acres. This area will probably be increased by improvements effected in 1902. Up to 1903 the capital cost incurred was about 10 lakhs. The Shebo canal takes off from the Quetta Lora and is supplemented by a system of tanks. It commands 5,340 acres, but less than half of this is irrigated annually. The capital cost up to 1903 was about 6¾ lakhs. Revenue and water rate are levied together, on both systems, in the shape of one-third of the gross produce, the whole amount being credited to the Irrigation department.

In 1903 the District contained four juniper Reserves on the Zarghūn range, with an area of 52 square miles; two pistachio forests of 13 square miles; and one mixed forest covering 2 square miles. In the latter tamarisk is the chief tree. Experimental plantations, covering 63 acres, are maintained close to Quetta.

Coal is found in the Sor range to the east of Quetta. The seam is narrow, but has been traced for nearly 20 miles. It is worked in different places by five contractors. The output, which is entirely consumed in Quetta, was 7,148 tons in 1903. Chromite has been discovered in scattered pockets in the serpentines and basic igneous intrusions near Khānozai, for working some of which a lease has been given to the Baluchistān Mining Syndicate. During 1903 about 284 tons were extracted.

Trade and communications.

The manufacture of felts and of rugs formed by the *darī* stitch is an indigenous industry. Excellent silk embroidery is prepared, especially by Brāhui women. In Quetta, Kandahāris make copper vessels, which are equal in quality to those sold in Peshāwar. The Murree Brewery Company has a branch at Kirāni, about 5 miles from Quetta, the output of which was 347,220 gallons of beer in 1903. In 1904 some successful experiments were made in sericulture.

The great increase in trade is referred to in the article on QUETTA TOWN. The only other marts of importance are Kila Abdullah and Chaman, from both of which places trade is carried on with Afghānistān. The total value of this trade in 1903 amounted to about 13½ lakhs, imports being valued at 6½ and exports at 7 lakhs. Live animals, *ghī*, asafoetida, fresh and dried fruits, and pile carpets are the principal imports from Afghānistān, and food-grains, piece-goods, and metals

from India. Exports to India are chiefly wool, *ghī*, and fruits, and to Afghānistān piece-goods, metals, and dyes.

The Mushkāf-Bolān branch of the North-Western Railway, on the standard gauge, enters the District from the south and runs to Quetta, where it meets a branch of the Sind-Pishīn section from Bostān. The latter line enters the District near Fuller's Camp and runs across the Pishīn plain to Chaman. The District is well provided with roads, the total length of metalled and partially metalled roads being 405, and of unmetalled paths 228 miles. They are maintained partly from Provincial revenues and partly from military funds.

Famine.

Owing to its large irrigated area and excellent communications, the District is well protected and actual famine has not been known. Some distress occurred between 1897 and 1902, owing to deficient rainfall and to damage done by locusts. Relief was afforded by the suspension and remission of land revenue, the grant of advances for the purchase of seed-grain and bullocks, and the opening of relief works, costing about Rs. 14,000. In years of deficient pasturage the railway is used by graziers to transport their flocks to more favoured tracts.

Administration.

The District is divided into three subdivisions and *tahsīls*: CHAMAN, PISHĪN, and QUETTA. Of these, Chaman, Pishīn, and Shorarūd in Quetta form part of British Baluchistān, and the rest of the Quetta *tahsīl* is Agency Territory. The executive head of the District combines the functions of Deputy-Commissioner for areas included in British Baluchistān, and of Political Agent for Agency Territories. A Native Assistant is in charge of Chaman, an Extra-Assistant Commissioner of Pishīn, and the Assistant Political Agent of the Quetta subdivision. The *tahsīls* of Quetta and Pishīn each have a *tahsīldār* and a *naib-tahsīldār* for revenue work. The superior staff at head-quarters includes a Superintendent of police, two Extra-Assistant Commissioners, a Cantonment Magistrate, and an Assistant Cantonment Magistrate.

Civil work at Quetta is disposed of by a Munsif, and four Honorary Magistrates assist the ordinary staff in deciding criminal cases. Both civil and criminal powers are exercised by all the officers mentioned in the preceding paragraph. The Political Agent is the District and Sessions Judge. In 1903 the total number of cognizable cases reported was 1,402, conviction being obtained in 1,232. Most of the cases were of a petty nature. The total number of criminal cases disposed of by the courts in 1903–4 was 3,102, and of civil cases 4,807. Disputes were referred to a *jirga* for award under the Frontier Crimes Regulation in 203 cases.

The District furnished the emperor Akbar with a force of 2,550 horse and 2,600 foot; Rs. 750 in cash; 4,340 sheep; 1,280 *kharwārs*

of grain, and 7 maunds of butter. Nādir Shāh assessed Pishīn to furnish a fixed number of men-at-arms, a system known as *gham-i-naukar*, which was continued by Ahmad Shāh Durrani, in whose time 895 *naukars* were taken. In the time of Tīmūr Shāh some of the tribesmen were recalcitrant, and the land of 151 *naukars* was confiscated. The remaining service grants were subsequently commuted for cash payment. When the District came into the hands of the British this cash payment was still in force in some parts of the Pishīn *tahsīl*, while in others the system had broken down, and *batai*, or the taking of an actual share of the produce, had been substituted. The combined system was continued in Pishīn up to 1889, the Government share of the produce being levied at rates varying from one-third to one-sixth. In 1899 a fixed cash assessment on irrigated estates was introduced for twenty years. The incidence per irrigated acre ranged from a maximum of Rs. 5–0–3 to a minimum of Rs. 1–5–3, the average being Rs. 2–13–10. In the Quetta valley, the land revenue under native rule was obtained partly from a fixed assessment in cash or kind, called *zar-i-kalang*, partly from appraisement, and partly by division of the crops. The system continued up to 1890, when *batai* at a uniform rate of one-sixth of the produce and a grazing tax were introduced. A fixed cash assessment was imposed on irrigated lands for ten years from 1897, and is now about to be revised. The maximum incidence per acre on irrigated area was Rs. 3–9–4, the minimum Rs. 1–6–2, and the average Rs. 2–0–4. In Shorarūd, revenue was first levied in 1882–3 at one-sixth of the produce, and from April, 1897, a fixed cash assessment was imposed on irrigated lands. Large revenue-free grants are held, especially in Pishīn. The estimated annual value of the land revenue thus alienated is Rs. 42,700. The total land revenue of the District in 1903–4 was 1·5 lakhs, and the revenue from all sources 3·2 lakhs. The land revenue yielded 47 per cent. of the total, stamps 12 per cent., and excise 35 per cent.

The Quetta municipality was formally constituted in October, 1896. Its affairs are managed by a committee, consisting of thirteen nominated official and non-official members, with the Political Agent as *ex-officio* president. The only Local fund is the Pishīn Sadr and District bazar fund, which is controlled by the Political Agent. Its chief source of income is octroi, and its expenditure is incurred on objects of public utility, principally at Pishīn and Chaman. The income in 1903–4 amounted to Rs. 39,600 and the expenditure to Rs. 34,000.

QUETTA is the head-quarters of the fourth division of the Western Command and has the usual staff. Besides the garrison of Quetta, a Native infantry regiment is stationed at Chaman and detachments are posted at Pishīn and, to guard the Khojak tunnel, at Shelabāgh and Spinwāna.

In 1904 the total force of police amounted to 519 men, of whom 362 were constables and 53 horsemen. The officers include a District Superintendent, an Assistant Superintendent, 5 inspectors, and 11 deputy-inspectors. The force was distributed in 17 stations. The Quetta municipality pays for a force of 86 police, the cantonment committee for 84, and Local funds for 24 watchmen. The local levies number 487, including 170 mounted men. There is a District jail at Quetta, and a subsidiary jail at Pishīn, with total accommodation for 139 male and 10 female prisoners. Convicts whose term exceeds six months are generally sent to the Shikārpur jail in Sind.

In educational, as in other respects, the District is the most advanced in the Province. In 1904 the number of Government and aided schools was twelve, with 827 pupils, including 148 Indian girls and 44 European and Eurasian children. The cost amounted to Rs. 23,500, of which Rs. 7,700 was derived from fees and subscriptions, and Rs. 7,100 from Provincial revenues, the balance being met by the North-Western Railway and from Local funds. The three mission schools had 85 pupils. About 900 pupils were under instruction in mosque schools.

The District possesses one Government-aided hospital, in charge of a Civil Surgeon, and seven dispensaries, including a female dispensary maintained from the Lady Dufferin fund. They contain accommodation for 118 in-patients. The total attendance of patients in 1903 was 63,310; the daily average attendance in Government institutions being 59 in-patients and 211 out-patients. Two of these institutions are maintained by the North-Western Railway, at Bostān and Shelabāgh, and two receive grants from Local funds; the expenditure of the others is met from Provincial revenues. In 1903 the total expenditure from Provincial revenues and Local funds amounted to Rs. 18,109. The Church of England Medical Mission maintains two hospitals, to which 592 in-patients were admitted in 1902, while the out-patients numbered 19,190.

Vaccination is compulsory in the town and cantonment of Quetta, and there are indications that the people are beginning to prefer this method to inoculation. The number of successful vaccinations in 1903 was 2,660, or about 23 per 1,000 of the population.

[*Settlement Report of the Pishīn Tahsīl* (1899); J. H. Stocqueler, *Memorials of Afghānistān* (Calcutta, 1843); *Records, Geological Survey of India*, vol. xxvi, pt. ii of 1893.]

Quetta Subdivision.—Subdivision and *tahsīl* of the Quetta-Pishīn District, Baluchistān, lying between 29° 52′ and 30° 27′ N. and 66° 15′ and 67° 18′ E. It is held on a perpetual lease from the Khān of Kalāt. For administrative purposes Shorarūd, which is British territory, is attached to it. The two cover an area of 1,174 square

miles, of which 540 form the Quetta *tahsīl* proper. The population in 1901 numbered 45,897, that of Shorarūd being 1,062. The only town is QUETTA (population, 24,584); and the villages number 54. The *tahsīl* occupies a valley about 5,500 feet above sea-level, surrounded by mountains. Shorarūd derives its name from a stream of brackish water, which traverses it to join the Pishīn Lora; it consists of the river basin and the Sarlath hills, beyond which lies Shorāwak in Afghānistān. The Sarlath hills afford excellent pasturage. Shorarūd contains only 7 permanent villages. The land revenue of the whole *tahsīl* in 1903-4 amounted to Rs. 65,500, of which Rs. 2,000 was contributed by Shorarūd. Owing to the ready market available in the Quetta town and cantonment and the numerous *kārez*, the Quetta valley is the best cultivated in Baluchistān, and the extension of fruit gardens has been marked. Coal is found in the adjoining Sor range. A branch of the Murree Brewery has been worked near Kirāni since 1886.

Quetta Town (*Kwatah*, locally known as Shāl or Shālkot).— Capital of the Baluchistān Agency and head-quarters of Quetta-Pishīn District, situated in 30° 10′ N. and 67° 1′ E., at the northern end of the *tahsīl* of the same name. It is now one of the most desirable stations in Northern India. Quetta is connected with India by the North-Western Railway, being 727 miles from Lahore and 536 from Karāchi. It was occupied by the British during the first Afghān War from 1839 to 1842. In 1840 an assault was made on it by the Kākars, and it was unsuccessfully invested by the Brāhuis. The present occupation dates from 1876. The place consists of the cantonment on the north, covering about 15 square miles, and the civil town on the south, separated by the Habīb Nullah. Population has risen from 18,802 in 1891 to 24,584 in 1901. It includes 3,678 Christians, mainly the European garrison, 10,399 Muhammadans, and 8,678 Hindus. The majority of the remainder are Sikhs. The ordinary garrison comprises three mountain batteries, two companies of garrison artillery, two British and three Native infantry regiments, one regiment of Native cavalry, one company of sappers and miners, and two companies of volunteers. The police force employed in the cantonment and town numbers 180.

Municipal taxes have been levied since 1878, but the present municipal system dates from 1896. The income in 1903-4 was 2·2 lakhs, chiefly derived from octroi; and the expenditure was 2·1 lakhs. The committee has obtained loans from Government for carrying out drainage and water-works, of which the unpaid balance on March 31, 1904, amounted to Rs. 31,100. Half of the net octroi receipts is paid over to the cantonment fund. The receipts of this fund, from which the maintenance of the cantonment is provided, were 1·1 lakhs in

1903–4, and the expenditure wās 1·3 lakhs. Much attention has been paid to sanitation and the prevention of enteric fever, which was at one time common. A piped supply of water for the cantonment, civil station, and railway was completed in 1891 at a cost of about $7\frac{1}{4}$ lakhs, and an additional supply has since been provided for the cantonment at a cost of more than $3\frac{1}{4}$ lakhs. The civil station and town lie somewhat low, and nearly $1\frac{1}{4}$ lakhs has been expended in providing a system of street drainage. The principal buildings are the Residency, the Sandeman Memorial Hall, St. Mary's Church, and the Roman Catholic Church. The civil hospital is well equipped, and the town also possesses a female dispensary, two mission hospitals, a high school, a girls' school, and a European school. A mill for grinding flour and pressing wool and chopped straw has existed since 1887. The Indian Staff College has recently been completed and opened. A feature of the station is the gymkhana ground, with its fine turfed polo and cricket grounds. The trade of Quetta is continually expanding. Imports by rail have increased from 39,200 tons in 1893 to 56,224 tons in 1903, and exports from 5,120 to 13,829 tons.

Quilāndi.—Seaport in the Kurumbranād *tāluk* of Malabar District, Madras, situated in 11° 27′ N. and 75° 42′ E. Population (1901), 5,870. It contains a sub-magistrate's and a District Munsif's court. It was close to this place that Vasco da Gama's fleet first cast anchor in 1498.

Quilon (*Kollam*).—Town and port in the *tāluk* of the same name, Travancore State, Madras, situated in 8° 53′ N. and 76° 36′ E. Population (1901), 15,691. It is one of the oldest towns on the coast and was refounded in A.D. 1019. Its natural situation and consequent commercial importance made it coveted by every foreign power, and subjected it in its early days to many political vicissitudes. Towards the middle of the eighteenth century the State of Quilon, also called Desinganādu, was annexed to Travancore. It was formerly one of the greatest ports on the west coast, but has now fallen to a very considerable extent from its high estate. With the opening of the Tinnevelly-Quilon Railway, however, Quilon, as the terminal station, now finds itself placed in direct communication with the Madras Presidency and should revive once more. A railway siding has been made to the edge of the backwater. The palace of the Mahārājā of Travancore is on the borders of the Quilon lake, called by General Cullen the Loch Lomond of Travancore, which possesses enchanting scenery. The town also contains a Residency, the office of the Dīwān Peshkār, the District and subordinate courts, high schools, hospitals, and other institutions. Cotton-weaving and spinning and the manufacture of tiles are the chief industries. A cotton-spinning mill has been opened recently. The chief exports are coffee, tea, fish, timber, pepper, and

coir; and the chief imports are salt and tobacco. The customs revenue averages about Rs. 10,000. The tonnage of vessels of all classes which call annually at the port is 22,000. The sanitation and conservancy of the town are attended to by a town improvement committee.

The ancient history of Quilon goes back to the earliest times of the old Syrian Church in India. The Nestorian Patriarch Jesujabus of Adiabene noted in the seventh century that Quilon was the southernmost point of Christian influence. It appears in Arabic as early as A.D. 851 under the name *Kaulam-Mall*, when it was already frequented by ships from China. It is the *Coilum* of Marco Polo, and was an important place in the thirteenth and fourteenth centuries. The Portuguese had a factory here, which was captured by the Dutch in 1662. From them, it passed to the English East India Company. The portion now in the possession of the British Government is known as TANGASSERI.

Rabkavi.—Town in the State of Sāngli, Bombay, situated in 16° 28′ N. and 75° 9′ E., on the right bank of the Kistna. Population (1901), 5,748, consisting almost entirely of bankers, traders, and artisans. Local affairs are managed by a municipal body, known as the *Daiva*, with an income of about Rs. 3,800. Rabkavi is an important trade centre. Silk is dyed and made up into various articles of clothing. Cotton is also dyed to some extent, with the permanent dye known as *suranji*. The town appears to have been named after the village goddess Rabbava. It has fine temples, of which that of Shankarling is the principal.

Rābkob.—Head-quarters of Udaipur State, Central Provinces. *See* DHARMJAYGARH.

Rabūpura.—Town in the Khurja *tahsīl* of Bulandshahr District, United Provinces, situated in 28° 15′ N. and 77° 37′ E., 19 miles west of Bulandshahr town. Population (1901), 5,048. The place was founded by a Mewātī named Rabū in the eleventh century. The Mewātīs were ousted by the Jaiswār Rājputs in the time of Prithwī Rāj, late in the twelfth century. From the days of Shāh Alam II up to 1857, Rabūpura was the centre of an estate comprising 24 villages, which was confiscated after the Mutiny for the rebellion of the proprietors. The town contains a good brick market, and half the houses and shops are also of brick. The American Methodist Mission has a branch here, with a small church and dispensary. Rabūpura is administered under Act XX of 1856, with an income of about Rs. 1,300. There is a considerable trade in cattle. The primary school contains 60 pupils.

Rachna Doāb.—*Doāb* in the Punjab. *See* RECHNA DOĀB.

Rādhanpur State.—State in the Pālanpur Agency, Bombay

lying between 23° 26′ and 23° 58′ N. and 71° 28′ and 72° 3′ E., with an area of 1,150 square miles. Including Sami and Munjpur, it is bounded on the north by the petty States of Morvāda and Tervāda; on the east by Baroda; on the south by Ahmadābād District and Jhinjhūvāda in Kāthiāwār; and on the west by the petty State of Vārāhi under Pālanpur.

The country is flat and open. Its rivers, three in number, rise near Mount Abu and the spurs of the Arāvalli range, and fall into the Little Rann. They generally dry up during the hot season, when the inhabitants are dependent on wells for their supply. Water is found at a depth of from 10 to 30 feet, but is sweet only near the surface, owing to the proximity of the Rann. From April to July, and in October and November, the heat is excessive. If rain falls, August and September are pleasant months; and from December to March the climate is cool and bracing. The prevailing disease is fever. The mean temperature is 41° in January and 115° in June.

Rādhanpur, now held by a branch of the Bābi family, who, since the reign of Humāyūn, have always been prominent in the annals of Gujarāt, is said to have once belonged to the Vāghelas, and to have been called Lūnāvāda, after Vāghela Lūnājī of the Sardhāra branch of that tribe. Subsequently it was held as a fief under the Sultāns of Gujarāt by Fateh Khān Baloch, and is said to have been named Rādhanpur after Rādhan Khān of that family.

The first Bābi entered Hindustān in the company of Humāyūn. Bahādur Khān Bābi was appointed *faujdār* of Tharād in the reign of Shāh Jahān; and his son Sher Khān Bābi, on account of his local knowledge, was sent to aid prince Murād Bakhsh in the government of Gujarāt. In 1693 his son Jāfar Khān, by his ability and local influence, obtained the *faujdāri* of Rādhanpur, Sami, Munjpur, and Tervāda, with the title of Safdar Khān. In 1704 he was made governor of Bijāpur (in Gujarāt), and in 1706 of Pātan. His son Khān Jahān, also styled Khānjī Khān, received the title of Jawān Mard Khān, and was appointed governor of Rādhanpur, Pātan, Vadnagar, Visalnagar, Bijāpur, Kherālu, &c. His son, again, Kamāl-ud-dīn Khān, usurped the governorship of Ahmadābād after the death of Aurangzeb, during the incursions of the Marāthās and the subsequent collapse of the imperial power. During his rule a branch of the family was able to establish itself at Junāgarh and Bālāsinor. The founder of the Junāgarh house, who was also the first Bābi of Bālāsinor, was Muhammad Bahādur, otherwise known as Sher Khān. In 1753 Raghunāth Rao Peshwā and Dāmājī Gaikwār suddenly appeared before Ahmadābād; and Kamāl-ud-dīn Khān, after a brilliant defence, was forced to surrender the city, but was confirmed as *jāgīrdār* of Rādhanpur, Sami, Munjpur, Pātan, Visalnagar, Vadnagar,

Bijāpur, Tharād, and Kherālu. It was agreed at the same time that the Marāthās should give Kamāl-ud-dīn Khān the sum of one lakh, besides presenting him with an elephant and other articles of value. Dāmājī Gaikwār, however, wrested from his successors all their dominions, excepting Rādhanpur, Sami, and Munjpur.

In 1813 Rādhanpur, through Captain Carnac, then Resident at Baroda, concluded an engagement with the Gaikwār, whereby the latter, under the advice of the British authorities, was empowered to control the external relations of Rādhanpur, and assist in defending it from foreign invasion. In 1819, on aid being sought of the British Government by Rādhanpur against the Khosas, a predatory tribe from Sind, Colonel Barclay marched against them and expelled them from Gujarāt. In 1820 Major Miles negotiated an agreement with the Nawāb of Rādhanpur. Under the terms of this agreement the Nawāb bound himself not to harbour robbers, or enemies of the British Government; to accompany the British troops with all his forces; and to pay a tribute in proportion to his means. On February 18, 1822, the tribute was fixed for five years at Rs. 17,000. This tribute was, in 1825, remitted by the British Government, and has never again been imposed, the engagement of 1820 remaining in force in other respects. The Nawāb is entitled to a salute of 11 guns. The family hold a *sanad* authorizing any succession that may be legitimate according to Muhammadan law, and follow the rule of primogeniture in point of succession.

The population in 1901 was 61,548, compared with 98,017 in 1891. Hindus numbered 49,887 and Muhammadans 8,019. The State contains one town, RĀDHANPUR; and 159 villages. The principal products are cotton, wheat, and the common kinds of grain. Except vegetables, no irrigated crops are grown. The only manufacture of importance is the preparation of a fine description of saltpetre.

The chief has power to try his own subjects, even for capital offences, without permission from the Political Agent. In 1903–4 the gross revenue of the State amounted to nearly 4 lakhs, chiefly derived from land (2·7 lakhs) and customs (Rs. 79,000).

The State maintains a military force of 35 horse and 163 foot. The strength of the police in 1903–4 was 771 men. There are 24 schools attended by 711 pupils, including 94 girls. The State maintained six medical institutions in 1903–4, treating more than 13,400 patients. In the same year over 1,500 persons were vaccinated.

Rādhanpur Town.—Capital of the State of the same name in Bombay, situated in 23° 49′ N. and 71° 39′ E. Population (1901), 11,879. It lies in the midst of an open plain, mostly under water during the rains. It is surrounded by a loopholed wall 15 feet high, 8 feet broad, and about 2½ miles in circumference, with corner

towers, 8 bastioned gateways, outworks, and a ditch now filled up. There is also, surrounded by a wall, an inner fort or castle, where the Nawāb lives. Rādhanpur is a considerable trade centre for Northern Gujarāt and Cutch. The nearest railway station, 34 miles distant, is at Pātan. A municipality is maintained from local taxation, which yielded Rs. 2,717 in 1903-4, and from a monthly grant of Rs. 750 made by the State. The chief exports are rapeseed, wheat, grain, and cotton; and the chief imports are rice, sugar, tobacco, cloth, and ivory. In 1816, and again in 1820, a disease, in many symptoms resembling the true plague, visited Rādhanpur and caused the death of half its population. The name is said to be derived from Rādhan Khān, a descendant of Fateh Khān Baloch who held the town under the Ahmadābād Sultāns. Another tradition claims for the town a remote origin (A.D. 546), and that it was named after Rādan Deo, a Chāvada chief. Since the defeat of Kamāl-ud-dīn Khān Bābi at Ahmadābād in 1753, Rādhanpur has been the head-quarters of a branch of the Bābi family.

Rāe Barelī District.—South-eastern District of the Lucknow Division, United Provinces, lying north-east of the Ganges, between 25° 49′ and 26° 36′ N. and 80° 41′ and 81° 34′ E., with an area of 1,748 square miles. In shape it resembles a segment of a circle with the Ganges as the chord. It is bounded on the north-west by Unao; on the north by Lucknow and Bārā Banki; on the east by Sultānpur and Partābgarh; and on the south-west by the Ganges, which divides it from Fatehpur. The general aspect of Rāe Barelī is that of a beautifully wooded, gently undulating plain. It is markedly fertile and well cultivated. The principal rivers are the Ganges and the Sai, the former skirting the District for 54 miles along its south-western boundary, while the latter runs through the centre in a tortuous course from north-west to south-east. Both of these rivers flow in deep beds, but the Ganges is bordered by a fertile valley of varying width before the upland portion is reached. Between the Ganges and the Sai lies a chain of *jhīls* or swamps more or less connected with one another, and probably forming an old river-bed. North of the Sai are found many other *jhīls*, but these are ordinary shallow depressions and have not the narrow deep beds of the southern swamps. The Lonī flows across the south-west corner of the District to join the Ganges; and there are many smaller streams, generally known as Naiyā, which carry off water only in the rains, and drain the *jhīls* to some extent.

Physical aspects.

The District is entirely composed of Gangetic alluvium, and *kankar* or nodular limestone is the only stone formation.

The flora presents few peculiarities. Up to the time of the Mutiny the stronghold of every *talukdār* was surrounded by dense jungle, and

a scrub forest extended for twelve miles on either side of the Sai. Only a few patches of *dhāk* (*Butea frondosa*) now remain. The numerous groves are chiefly composed of mango or *mahuā* (*Bassia latifolia*) and the *nīm* (*Melia Azadirachta*). Various kinds of fig, the *babūl* (*Acacia arabica*), and *jāmun* (*Eugenia Jambolana*) are also common.

There are a few wolves, but jackals abound. *Nīlgai* and antelope are scarce. Some cattle still roam wild near the Ganges and Sai. In the cold season water-fowl and snipe are plentiful; other game-birds include quail and a few partridge and sand-grouse. Fish are caught in the *jhīls*, and also in the rivers.

The climate is healthy, and the temperature is not marked by extremes of either heat or cold. Cool nights are experienced well into the hot season.

The annual rainfall averages a little over 37 inches, the east of the District receiving the heaviest fall. As a rule the amount is not less than 24 inches; but in 1877, 1880, and 1896 it was only 13 inches. On the other hand, in 1867 and 1894 the amount was 60 inches.

History.

The District has never played a large part in history, and it contains few places of importance. Tradition relates that the Muhammadan saint, Saiyid Sālār, raided it in the eleventh century; and from similar sources a few details are obtained regarding the three clans of Rājputs—the Bais, the Kānhpuriās, and the Amethiās—who still hold the greater part of the land. The first of these occupied a tract in the south and west, which was afterwards known as Baiswārā. The earliest historical events of which reliable accounts have been preserved are, however, connected with the incorporation of the District in the Sharkī kingdom of Jaunpur, early in the fifteenth century. At that time the Bhars, who still held part of the country, were completely crushed. The Rājputs, however, were only partially reduced, and warfare was frequent till Akbar established a more settled government. Under that monarch Rāe Barelī was divided between the two *Subāhs* of Oudh and Allahābād. After Akbar's death the Rājputs appear to have increased greatly in importance and power; and when Oudh became a separate state in the eighteenth century, Nawāb Saādat Khān entrusted several of the chiefs with the collection of revenue in their own *parganas*. As disorders increased, attempts to assert independence became more frequent, and the history of the closing years of Oudh rule is one of constant fighting between chief and chief or between the Rājās and the court officials.

At annexation in 1856 a District of Salon was formed, extending from Purwā in Unao to Allahābād. A year had hardly elapsed when the Mutiny broke out. The sepoys abstained from rebellion longer

than in any other cantonment in Oudh; but on June 10, 1857, they ceased to obey orders and the officers were warned to depart. The whole of the European staff was allowed to escape and reached Allahābād safely. The District then reverted to its former lawless state under the Oudh government, though little help was sent to the rebel army at Lucknow. Some of the Kānhpuriās at once began plundering, but the *talukdārs* for the most part were not actively rebellious. After the fall of Lucknow, however, their opposition became more marked, and that of Rānā Benī Mādho Bakhsh of Shankarpur in Baiswārā was especially determined. On the other hand, the Rājā of Murārmau was loyal throughout, and several of the important *talukdārs* surrendered early and gave valuable services. It was not till the end of October that Lord Clyde made his great combined movement on Baiswārā, which ended in the flight of Benī Mādho a month later. Rāe Barelī then became the head-quarters of the District; but its shape and size were considerably altered in 1869, when part was transferred to Unao and part to Bāra Bankī, while additions were made from Sultānpur and Partābgarh.

The District contains many ancient mounds, some of which have yielded stone carvings, terra-cotta images, and other memorials dating from Buddhist times. The chief places of archaeological interest are JAIS, DALMAU, and RĀE BARELĪ.

Population.

Rāe Barelī contains 4 towns and 1,736 villages. The population has fluctuated. At the four enumerations the numbers were: (1869) 989,008, (1881) 951,905, (1891), 1,036,521, and (1901) 1,033,761. There is some reason to suppose that the Census of 1869 overstated, and that of 1881 understated, the actual population. The District suffered from famine in 1877-8 and again in 1896-7. There are four *tahsīls*—RĀE BARELĪ, DALMAU, MAHĀRĀJGANJ, and SALON—each named from its head-quarters. The principal towns are the municipality of RĀE BARELĪ and JAĪS. The following table gives the chief statistics of population in 1901:—

Tahsil.	Area in square miles.	Number of		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Rāe Barelī	371	1	353	223,505	602	+ 0.7	8,192
Dalmau	472	1	575	270,900	574	− 1.8	9,987
Mahārājganj	465	...	364	278,086	598	+ 0.5	8,342
Salon	440	2	444	261,270	594	− 0.3	6,198
District total	1,748	4	1,736	1,033,761	591	− 0.3	32,719

Hindus form 91 per cent. of the total, and Musalmāns nearly 9 per

cent. Eastern Hindī is spoken by almost the entire population, the dialect in use being Awadhī.

The Hindu castes most largely represented are: Ahīrs (graziers and cultivators), 129,000; Pāsīs (toddy-drawers and cultivators), 107,000; Brāhmans, 105,000; Chamārs (tanners, labourers, and cultivators), 98,000; Rājputs or Chhattrīs, 67,000; Lodhas (cultivators), 64,000; Muraos (market-gardeners), 48,000; and Kurmīs (agriculturists), 44,000. Among Musalmāns are Gūjars, 13,000; Shaikhs, 9,000; Pathāns, 9,000; and Rājputs, 8,000. Agriculture supports 76 per cent. of the total population. Rājputs or Chhattrīs hold two-thirds of the District, the Bais and Kānhpuriā clans being the largest landholders. Ahīrs, Brāhmans, and Rājputs or Chhattrīs are the most numerous cultivators; but Lodhas, Kurmīs, and Muraos are the most skilful.

There were 97 native Christians in 1901, of whom 68 were Methodists and 10 belonged to the Anglican communion. A branch of the American Methodist Mission was opened in 1864 and closed in 1901; but native catechists are still employed at a few places.

Agriculture.

The low land in the valley of the Ganges, called *kachhār*, varies in width from two miles to a few yards. The lowest portion is flooded during the rains, but generally bears good crops in the spring; the higher stretches are very fertile, and occasionally autumn crops can be sown in them. The uplands vary according to the class of soil. In the south it is a rich firm loam, producing wheat and poppy in the spring and millets in the autumn. As the *jhīls* are approached, the soil becomes heavier, and rice is the prevailing crop, which is followed in spring by gram and linseed. Large patches of barren *ūsar* are common here. The valley of the Sai and its tributaries resembles that of the Ganges, but is inferior in quality. North of the Sai is another large area of rice land, producing also inferior spring crops.

The tenures by which land is held are those common to the Province of OUDH. About two-thirds of the District is included in *talukdāri* estates, and 5 per cent. of the total area is sub-settled. Under-proprietors also hold about 5 per cent. The main agricultural statistics for 1903-4 are shown below, in square miles:—

Tahsīl.	Total.	Cultivated.	Irrigated.	Cultivable waste.
Rāe Barelī	371	216	94	70
Dalmau	472	256	123	76
Mahārājganj . . .	465	233	129	77
Salon	440	241	123	58
Total	1,748	946	469	281

Rice is the crop most largely grown, covering 268 square miles,

or 28 per cent. of the net cultivated area. Wheat (176), gram (170), barley (139), pulses (99), *jowār* (95), *arhar* (81), and *kodon* and small millets (64), are also important food-crops. The District is one of the largest poppy-growing areas in the United Provinces. In 1903–4 the area under poppy was 48 square miles, and the price paid to the cultivators for their opium has sometimes exceeded the land revenue demand on the whole District.

Immediately after the Mutiny there was a great extension of cultivation. The series of bad seasons commencing in 1891 checked the rise which had continued since the first settlement; but after 1897 another increase took place, and the net cultivated area is now about 7 per cent. higher than it was forty years ago. This increase in the area under the plough has also been accompanied by an extension of the system of double-cropping, and by an increase in the area sown on the banks of *jhīls* with small millet and rice to ripen in the hot season. The most important increase has been in the area under poppy, and the general tendency has been to cultivate the more valuable crops in place of inferior staples. There has been a little reclamation of land by throwing dams across ravines to prevent erosion and to collect silt. Advances are freely taken, especially under the Agriculturists' Loans Act. The total lent by Government during the ten years ending 1900 was 3·8 lakhs, of which 2·4 lakhs was advanced in the famine year 1896–7. In the next four years loans averaged only Rs. 4,000. A few small agricultural banks have been started.

Pasture land is scarce, and the breed of cattle is poor, the best animals being all imported. Ponies are still largely used as pack-animals; but the breed is very inferior. A stallion is now maintained in the District, to introduce a better strain. Sheep and goats are kept in large numbers, to provide wool, meat, milk, and manure.

Rāe Barelī is well provided with means of irrigation. In 1903–4 the irrigated area was 469 square miles, of which 300 were supplied from wells, 164 from tanks or *jhīls*, and 5 from other sources. The number and importance of wells is increasing, and the safety of the crops is thereby enhanced, as *jhīls* fail in dry years, when most needed. The larger wells are worked by bullocks; but where the water-level is higher, the *dhenklī* or lever and the pot and pulley worked by hand are used. Water is raised from *jhīls* in the swing-basket. There are very few artificial tanks, and those which exist are ascribed to the Bhars. The larger streams are little used for irrigation, as their beds lie deep below the surface of the country.

Kankar or calcareous limestone is found in both block and nodular formations in most parts and is used for making lime and metalling roads. Saline efflorescences called *reh* are collected for making coarse glass and for other purposes.

The only manufacture of any importance is that of coarse cotton cloth, which is made in many parts of the District. Finer materials are produced at JAIS and RĀE BARELĪ; but the industry is dying out, as there is little demand for them. Glass bangles and small phials are made in a few places. Apart from these industries little is produced in the District.

Trade and communications.

Under native government the transit dues extorted by the landholders prevented any trade of importance, and as late as 1866 the District consumed most of its own produce and hence imported little. The improvement of communications and the freedom from imposts have caused a great advance in this respect; and the District now exports grain, opium, poppy-seeds, hides, bones, oilseeds, and a little tobacco and raw sugar, and imports piece-goods, metals, salt, sugar, and spices. Rāe Barelī is the chief trading centre; but Lālganj, Mahārājganj, and Baintī are rising in importance. Much of the trade of the south is with Kālakānkar in Partābgarh District; and the trade of Dalmau, which was formerly of some consequence, is declining, though it is still the site of a large religious fair.

The main line of the Oudh and Rohilkhand Railway enters the north-west of the District and turns east from Rāe Barelī town, thus passing through the centre. Communications by road are fairly good, and have been much improved in recent years. There are 601 miles of roads, of which 115 are metalled. The whole of the roads are maintained at the cost of Local funds, though the metalled roads and some of the unmetalled are in charge of the Public Works department. Avenues of trees are maintained on 69 miles. The chief routes are the roads from Rāe Barelī town to Lucknow, Sultānpur, and Fatehpur. An old road from Delhi to Benares, north of the Ganges, passes through the south of the District.

Rāe Barelī has suffered from severe scarcity and famine. The great desolation of 1784 was long remembered, and there was scarcity again in 1810. The records of events under native government are, however, meagre. After annexation distress was experienced in 1864, 1869, and 1873, but does not appear to have been acute. In 1877–8 the deficiency in the rainfall was followed by widespread scarcity, causing acute distress for a considerable time, while actual famine prevailed for about two months. Relief works were opened both by Government and by the *talukdārs*, and large sums were spent by the charitable. In 1881 drought again resulted in scarcity and the collection of revenue was postponed. Excessive and untimely rain in the period 1893–5 caused distress, which necessitated the opening of small relief works. The resources of the people had thus been seriously affected before the failure of

Famine.

the rains in 1896, which caused the worst famine the District has experienced. More than a lakh was advanced for the construction of wells, and the revenue demand was suspended to the extent of 3 lakhs. In February, 1897, more than 90,000 persons were on relief works; but the liberal advances made enabled a large area of spring crops to be sown and food-grains to be imported, and by the end of July, 1897, the famine was over.

Administration.

The Deputy-Commissioner usually has a staff of four Deputy-Collectors recruited in India, and a *tahsīldār* resides at the head-quarters of each *tahsīl*. Three officers of the Opium department and an officer of the Salt department are stationed in the District.

There are two District Munsifs, four Honorary Munsifs, and a Subordinate Judge for civil work. Sultānpur and Partābgarh Districts are both included in the Civil Judgeship, and Partābgarh in the Sessions Division of Rāe Barelī. The most common variety of crime is burglary, for which the Pāsīs are especially notorious. Apart from this, serious offences are rare, and the people are quiet and law-abiding. Infanticide was formerly practised, but is no longer suspected.

At annexation, in 1856, a summary settlement was made, the records of which have perished. The estates of the *talukdārs* were largely reduced, villages being settled direct with the village proprietors. At the second summary settlement in 1859 a reversion was made to the actual position in 1856, except where estates had been confiscated for rebellion. The first regular settlement, preceded by a survey, began in 1860 and was carried out in different ways in the three Districts of which portions now make up Rāe Barelī. In Rāe Barelī itself the assessment was for the first time based entirely on the corrected rent-rolls, with adjustments for land held at privileged rates. The methods adopted in PARTĀBGARH and SULTĀNPUR, which will be found in the accounts of those Districts, were based partly on the use of corrected rent-rolls, and partly on the selection of average rates of rent. The result was an enhancement of the revenue fixed in the summary settlement from 9·5 to 12·4 lakhs. This settlement was revised between 1892 and 1896, chiefly by the District officer in addition to his own duties. There was no resurvey, and the corrected rent-rolls as usual formed the basis of the assessment. The result was an increase in the demand to 15·4 lakhs, representing 47 per cent. of the net corrected 'assets.' The incidence of land revenue is about Rs. 1·3 per acre, and varies very slightly in different parts of the District.

Collections on account of land revenue and revenue from all sources are given in the table on the next page, in thousands of rupees.

The District contains only one municipality, RĀE BARELĪ, and one town administered under Act XX of 1856. Local affairs outside of

these places are managed by the District board, which in 1903-4 had an income of 1·2 lakhs, chiefly derived from local rates, and an expenditure of 1·3 lakhs, including Rs. 61,000 spent on roads and buildings.

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	9,74	12,44	15,02	15,40
Total revenue . .	11,62	17,18	21,05	22,18

The District Superintendent of police has under him a force of 3 inspectors, 76 subordinate officers, and 304 constables, posted in 13 police stations, besides 41 municipal and town police, and 2,159 rural and road police. The District jail contained a daily average of 448 prisoners in 1903.

The people of Rāe Barelī are moderately well educated compared with their neighbours, and 3·2 per cent. (6·2 males and 0·2 females) could read and write in 1901. Public schools increased in number from 126 in 1880-1 to 166 in 1900-1, and the pupils from 5,170 to 7,418. In 1903-4 there were 196 such schools with 8,886 pupils, including 70 girls, and 35 private schools with 464 pupils. Only 1,000 pupils had advanced beyond the primary stage. Three schools are managed by Government and 111 by the District and municipal boards. The total expenditure on education was Rs. 43,000, of which nearly Rs. 32,000 was provided by Local funds and Rs. 7,000 from fees.

There are eleven hospitals and dispensaries, with accommodation for 70 in-patients. In 1903 the number of cases treated was 61,000, including 878 in-patients, and 2,600 operations were performed. The expenditure in the same year amounted to Rs. 14,000, chiefly met from Local funds.

About 36,000 persons were successfully vaccinated in 1903-4, giving a proportion of 35 per 1,000 of population. Vaccination is compulsory only in the municipality of Rāe Barelī.

[W. C. Benett, *Clans of the Roy Bareilly District*; S. H. Fremantle, *Settlement Report* (1898); H. R. Nevill, *District Gazetteer* (1904).]

Rāe Barelī Tahsīl.—Head-quarters *tahsīl* of Rāe Barelī District, United Provinces, conterminous with the *pargana* of the same name, lying between 26° 4′ and 26° 26′ N. and 81° and 81° 25′ E., with an area of 371 square miles. Population increased from 221,875 in 1891 to 223,505 in 1901. There are 353 villages, but only one town, Rāe Barelī (population, 15,880), the District and *tahsīl* head-quarters. The demand for land revenue in 1903-4 was Rs. 3,24,000, and for cesses Rs. 52,000. This is the most densely populated *tahsīl* in the District, supporting 602 persons per square mile. It lies on both sides of the Sai, which flows in a tortuous channel, generally from

north-west to south-east, and receives numerous small streams. The centre is composed of a light soil, which, when well manured and watered, is exceedingly fertile. In the north and south a heavier clay is found, producing chiefly rice. In 1903-4 the area under cultivation was 216 square miles, of which 94 were irrigated. Wells supply three-fourths of the irrigated area, and tanks or *jhīls* most of the remainder.

Rāe Barelī Town.—Head-quarters of the District and *tahsīl* of the same name in the United Provinces, situated in 26° 14′ N. and 81° 14′ E., on the banks of the Sai, on the Oudh and Rohilkhand Railway, and on metalled roads to Lucknow, Fatehpur, and Sultānpur. Population (1901), 15,880. The town consists of two portions, Rāe Barelī proper, and a suburb called Jahānābād. The name Barelī is, according to some accounts, derived from the Bhars, who are said to have founded it. Ibrāhīm Shāh of Jaunpur conquered Rāe Barelī early in the fifteenth century and handed it over to Shaikhs and Saiyids. Husain Shāh changed the name of the place to Husainābād, but the alteration was never popular. Ibrāhīm Shāh added greatly to the strength of the fort, using the materials of older buildings which were ready to hand. A story relates that when the fort was building all that was erected during the day fell down in the course of the ensuing night. In his perplexity the king had resort to a holy man of Jaunpur, Makhdūm Saiyid Jāfari, who walked over the ground, after which no interruption occurred in the work. The saint's tomb stands beside the gate of the fort. Ibrāhīm also built the Jāma Masjid; and a second great mosque was erected by Jahān Khān, the founder of Jahānābād, in the reign of Shāh Jahān. Jahān Khān's palace and tomb still adorn the suburb named after him. A handsome bridge, which crosses the Sai, was built by public subscription soon after annexation. Besides the usual Government courts and buildings, the town contains male and female hospitals and a *sarai.* Rāe Barelī has been a municipality since 1867. During the ten years ending 1901 the income and expenditure averaged Rs. 26,000 and Rs. 25,000, respectively. In 1903-4 the income was Rs. 32,000, derived chiefly from octroi (Rs. 18,000) and market dues and rents (Rs. 7,000); and the expenditure was also Rs. 32,000. The town is the chief commercial centre in the District, and its trade has increased considerably since the opening of the railway in 1893. Two large markets, called Capperganj and Baillieganj, after former Deputy-Commissioners, absorb much of the trade, the latter being a bonded warehouse within octroi limits. Cotton cloth is woven to some extent, and muslins of good quality are also produced. Two secondary schools, six primary schools, and a small Sanskrit *pāthshāla* are attended by more than 500 pupils.

Rāekot.—Town in the Jagraon *tahsīl* of Ludhiāna District, Punjab. *See* RAIKOT.

Rāewind.—Junction on the North-Western Railway in the District and *tahsīl* of Lahore, Punjab. *See* RAIWIND.

Rāghugarh (*Rāghogarh*).—Mediatized chiefship of the Central India Agency, under the Resident at Gwalior. The State lies between 24° 6′ and 24° 34′ N. and 77° 7′ and 77° 25′ E., about 17 miles south-west of Guna, in the Khīchīwārā district of Mālwā. It takes its name from the fort of Rāghugarh, founded by Lāl Singh Khīchī in 1677, and called after a statue of Vishnu alleged to have been dug up on the spot. It has an area of about 112 square miles, between the Khīchī estates of Dharnaoda on the north and Garha on the south, and the Sironj and Chhabra *parganas* of Tonk State on the east and west. The territory is situated in the Deccan trap area and is much cut up by small hills, but the soil in the valleys is very fertile and bears excellent crops of all the ordinary grains, and of poppy. The Pārbati river, which flows along the western border, gives a perennial supply of water. The flora and fauna are the same as elsewhere in Mālwā. The climate is temperate, and the annual rainfall averages about 30 inches.

Though this State is now a small one, considerable interest attaches to its chief as the recognized head of the Khīchī Chauhāns, once a powerful branch of the great clan to which the famous Prithwī Rāj, the last Hindu ruler of Delhi, belonged. The branch is represented in Central India by the chiefs of Rāghugarh, Dharnaoda, MAKSUDANGARH, KHILCHIPUR, and GARHA. The Khīchī section of the clan is descended from Aje Rao, second son of Mānik Rai of Sāmbhar. The Khīchīs appear to have settled first in the Sind-Sāgar *doāb* in the Punjab, migrating south after the defeat of Prithwī Rāj by Muizz-ud-dīn in 1192. They then settled at Gāgraun, now in the Jhālawār State. In 1203 Deo Singh of Gāgraun received a grant of land from the Delhi emperor, which was extended by further grants to his successors, so that by the seventeenth century the Khīchī domains comprised most of the country between Guna, Sārangpur, Shujālpur, and Bhīlsa, the tract receiving the name of Khīchīwāra or 'the land of the Khīchīs.' In 1697 Gāgraun was taken from them by Bhīm Singh of Kotah, and Bajranggarh became their stronghold, the palace and fort of Rāghugarh being built seven years later. The fortunes of the Rāghugarh chiefs began to wane about 1780, when they were harassed by Mahādajī Sindhia, who imprisoned Rājā Balwant Singh and his son Jai Singh. The feud thus commenced lasted till 1818, being carried on principally by a Khīchī Thākur, Sher Singh, who systematically devastated the Khīchī territory so as to render it valueless to Sindhia. In 1816 Sindhia's general, Jean Baptiste Filose, granted the district of Maksudangarh, till then a part of this State, to Berī Sāl, a member of the same family, whose descendants still

hold it. On the death of Jai Singh in 1818 disputes arose as to the Rāghugarh succession, which were settled by the intervention of the British authorities, who mediated an agreement between Sindhia and the Rāghugarh chief, by which he received the fort and town of Rāghugarh and land in the vicinity, supposed then to be worth 1·4 lakhs yearly, with the proviso that any revenue derived from these lands exceeding Rs. 55,000 should be paid over to the Gwalior Darbār, who on its side was to make good any deficiency. The State was never able to make up the stipulated sum; and in 1828 the Gwalior Darbār ceased its payments on the ground that the State could, if under proper management, produce the required minimum. Disputes in the family complicated matters still further; and in 1843, with the consent and mediation of the British Government, it was arranged that the original agreement should be replaced by separate agreements with the principal members of the family. In accordance with this, Bijai Singh received 52 villages forming the GARHA estate, and Chhatar Sāl 32 villages forming the *thakurāt* of Dharnaoda, while Ajīt Singh continued at Rāghugarh, holding it under the agreement of 1818. Ajīt Singh was succeeded by Jai Mandal Singh in 1857. Bikramājīt Singh, who succeeded in 1900, was deposed in 1902 for maladministration. The present chief is Bahādur Singh, who was adopted by Bikramājīt Singh from a collateral branch and is still a minor, having been born in 1891. He bears the hereditary title of Rājā.

The population has been: (1881) 16,920, (1891) 18,123, and (1901) 19,446. Hindus number 13,968, or 72 per cent.; and Animists, 4,080, or 21 per cent., mostly Sahariās. The population has increased by 7 per cent. during the last decade, and the density is 173 persons per square mile. The language commonly spoken is the Rāngrī dialect of Rājasthānī. Only 1·5 per cent. of the inhabitants are literate. The population is almost entirely supported by agriculture. Of the total area, 42 square miles, or 37 per cent., are under cultivation, of which 3 square miles are irrigable. About 23 square miles are cultivable but not cultivated. Of the cropped area 2 square miles are under poppy, the rest being sown with cereals and other crops. The total revenue is about Rs. 52,000, of which Rs. 37,000 is derived from the land. Till forty years ago the State had its own silver coinage, but the British rupee is now current. The chief being a minor, the State is at present managed by a superintendent under the direct supervision of the Resident at Gwalior.

The capital, Rāghugarh, is situated in 24° 27′ N. and 77° 12′ E. Population (1901), 3,866. The chief feature of the place is the old palace-fort, which stands on a low hill about 1,800 feet above the level of the sea. Round it lie the remains of the city wall, which formerly enclosed a circuit of about 4 miles, within which the ruins of the

old town can still be seen, the modern town lying outside it. It has a school, a hospital, and a post office.

[R. Burn, 'The Bajranggarh Mint and Coins,' *Journal, Asiatic Society of Bengal*, 1897, part i.]

Raghunāthpur.—Town in the head-quarters subdivision of Mānbhūm District, Bengal, situated in 23° 31′ N. and 86° 40′ E. Population (1901), 4,171. Raghunāthpur was constituted a municipality in 1888. The income during the decade ending 1903-4 averaged Rs. 2,900, and the expenditure Rs. 2,450. In 1903-4 the income and expenditure were Rs. 3,000, the chief source of income being a tax on persons (or property tax). Raghunāthpur is a centre of the *tasar* silk industry.

Raghurājnagar (or Satnā).—*Tahsīl* of the Rewah State, Central India, lying between 24° 4′ and 25° 0′ N. and 80° 48′ and 81° 18′ E., with an area of 977 square miles. It is situated wholly on the alluvial plateau north of the Kaimur range, and is watered by the Tons and its tributaries. Population fell from 154,705 in 1891 to 144,312 in 1901, the density being 148 persons per square mile. The *tahsīl* contains 487 villages and one town, SATNĀ (population, 7,471), the head-quarters. The land revenue is 2·5 lakhs.

Rahimatpur.—Town in the Koregaon *tāluka* of Sātāra District, Bombay, situated in 17° 36′ N. and 74° 12′ E., 17 miles south-east of Sātāra town, on the Southern Mahratta Railway. Population (1901), 6,735. A weekly market is held on Thursday and Friday. Rahimatpur is a large trading centre. Bombay and English piece-goods, twist and silk, salt, coco-nuts, dates, and spices are imported; raw sugar, turmeric, earth-nuts, and coriander seed are exported. The chief objects of interest are a mosque and a mausoleum. The mausoleum seems to have been built in honour of Randullah Khān, a distinguished officer who flourished in the reign of the seventh Bijāpur Sultān, Muhammad (1626-56). About a hundred yards south-east of the mosque is an elephant water-lift—a tower about 50 feet high, with an inclined plane on the west, which supplied power for the mosque fountain. The municipality was established in 1853. During the ten years ending 1901 the income averaged Rs. 3,700. In 1903-4 the income was Rs. 3,100. The town contains a Sub-Judge's court and a dispensary.

Rahmān Garh.—Conspicuous hill-fort, 4,227 feet high, in the middle of Kolār District, Mysore, situated in 13° 21′ N. and 78° 1′ E. A large boulder on the western side is covered with belts of a brown colour, and from a crevice in the side a liquid resembling blood is said to issue at the beginning of the hot season, which kites and crows eagerly devour. The place surrendered to the British in 1791.

Rāhon.—Town in the Nawāshahr *tahsīl* of Jullundur District, Punjab, situated in 31° 4′ N. and 76° 8′ E. Population (1901), 8,651. It is said to have been founded before the Christian era by one Rājā

Raghab, who gave it the name of Raghūpur, which is still used by Hindu scholars. It was captured by the Ghorewāha Rājputs in the time of Muhammad of Ghor, whose leader renamed it Rāhon after a lady called Rāho. It is still considered unlucky to use the name Rāhon before breakfast; till then it is called Zanāna Shahr or 'woman town.' It was seized by the Sikh chief Tārā Singh, Ghaiba, in 1759, and annexed on his death by Ranjīt Singh. The principal manufactures are imitation gold and silver braid and cotton cloth, and there is a considerable trade in sugar. The municipality was created in 1867. The income and expenditure during the ten years ending 1902-3 averaged Rs. 11,200. In 1903-4 the income was Rs. 10,500, chiefly from octroi; and the expenditure was Rs. 10,700. The town possesses an Anglo-vernacular middle school, maintained by the municipality, and a Government dispensary.

Rāhuri Tāluka.—Central *tāluka* of Ahmadnagar District, Bombay, lying between 19° 15′ and 19° 37′ N. and 74° 23′ and 74° 51′ E., with an area of 501 square miles. It contains one town, VĀMBORI (population, 6,191), and 112 villages, including RĀHURI (5,681), its head-quarters. The population in 1901 was 83,494, compared with 64,862 in 1891. The increase was due to the large numbers (19,000) employed in 1901 upon relief works opened during famine. This raised the density to 167 persons per square mile, which is, with the exception of Ahmadnagar *tāluka*, the highest in the District. The demand for land revenue in 1903-4 was 1·8 lakhs, and for cesses Rs. 12,000. Rāhuri forms part of an extensive plain country drained by the rivers Mulā and Pravara, tributaries of the Godāvari. The south-eastern boundary is a well-marked range of hills dividing Rāhuri from the more elevated *tāluka* of Ahmadnagar, which forms the watershed between the Godāvari and the Bhīma. The highest point, the hill of Gorakhnāth, has an elevation of 2,982 feet above sea-level, or about 1,200 feet above the level of Rāhuri. The *tāluka* is scantily wooded, and, with the exception of a few mango and tamarind groves on the banks of rivers near villages, is entirely bare of trees. The prevailing soil is a deep black, requiring much rain to enable it to yield good crops. Towards the hills and on the ridges between the rivers, the soils being lighter and more friable are better adapted for the early crops. Four miles of the Ojhar canal and 17 miles of the Lākh canal traverse the *tāluka*. Early and late crops are grown in about equal proportions: the early crops chiefly in the hill villages, and the late crops in the plains. The Dhond-Manmād chord railway traverses the *tāluka* from north to south.

Rāhuri Village.—Head-quarters of the *tāluka* of the same name in Ahmadnagar District, Bombay, situated in 19° 23′ N. and 74° 39′ E., on the north bank of the Mulā river, 25 miles north of Ahmadnagar

town, and 3 miles from a station on the Dhond-Manmād chord railway. Population (1901), 5,681, including Khurd Rāhuri (203). Mārwāri traders are numerous in the town, which contains a Sub-Judge's court and a dispensary.

Raibāg.—Village in Kolhāpur State, Bombay. *See* RĀYBĀG.

Raichūr District[1].—District in the Gulbarga Division of Hyderābād State, adjoining Mahbūbnagar and Gulbarga, which bound it east and north, and the Madras Districts of Bellary and Kurnool in the south, from which it is separated by the river Tungabhadra. Before the extensive changes made in 1905, referred to below, it lay between 15° 50′ and 16° 54′ N. and 76° 50′ and 78° 15′ E., and had an area of 3,604 square miles, *khālsa* lands covering 2,319 square miles and the rest being *samasthāns* and *jāgīrs*. A range of hills traverses the Yādgīr *tāluk* from west to east for a length of 20 miles, and enters the Seram and Kodangal *tāluks* of Gulbarga District in the north-east. There are three other ranges, one extending from the north-west of Raichūr towards Yergara for 15 miles, another in the Raichūr and Mānvi *tāluks* 10 miles long, and the third 19 miles long in the south of the District in the Raichūr and Alampur *tāluks*. These really form a single range, extending for nearly 60 miles from the north-west of Raichūr to Alampur, with two breaks. The general slope of the country is from the north-west towards the south-east.

Physical aspects.

The most important river is the Kistna, which enters the Deodrug *tāluk* and flows for a distance of 130 miles in a south-easterly direction. The Tungabhadra forms the southern boundary up to the point of its confluence with the Kistna in the Alampur *tāluk*. The Bhīma enters the Yādgīr *tāluk*, and falls into the Kistna 16 miles north of Raichūr.

The District is occupied principally by Archaean gneiss, including, near its western boundary, some bands of crystalline schists known as the Dhārwār series, which contain auriferous quartz veins. At the extreme east, the triangular area above the confluence of the Kistna and Tungabhadra is occupied by rocks of the Kurnool series. The Dhārwārs and the Kurnools are fully described in the publications of the Geological Survey of India, the former by R. B. Foote (*Records*, vols. xxi, part ii, and xxii, part i), the latter by W. King (*Memoirs*, vol. viii, part i).

The most important trees are teak, ebony, *bījāsāl* (*Pterocarpus Marsupium*), *nallāmaddi* (*Terminalia tomentosa*), *eppa* (*Hardwickia binata*), *tarvar* (*Cassia auriculata*), mango, tamarind, *nīm*, and species of *Ficus*.

No large game is found, owing to the absence of forests; but in the hills leopards, bears, hyenas, and wolves are met with occasionally.

[1] This article, except where otherwise stated, describes the District as it stood before the changes made in 1905.

Among game-birds, partridge and quail, and near the tanks and on the rivers wild duck, teal, and other water-fowl, may be seen.

The District is generally healthy from October to the end of May, but during the rains ague and fever prevail. The parts bordering the rivers are damp. The temperature in May rises to 111°, but the nights are cool, and in December it falls to 70° F. The annual rainfall during the twenty-one years ending 1901 averaged 25·37 inches.

History.

Before the Muhammadan conquest, Raichūr was part of the Warangal kingdom, and it became subject to Vijayanagar when that power was established early in the fourteenth century. After Muhammad bin Tughlak's death, it fell to the Bahmanis, then to the Adil Shāhis of Bijāpur. After the conquest of Bijāpur by Aurangzeb, it was united to Delhi, but was separated from the empire on the foundation of the Hyderābād State. Under the treaty of 1853 it was assigned to the British, but was restored to the Nizām in 1860.

The principal antiquities are found in or near the fort of Raichūr, which is said to have been built by Gore Gangaya Ruddivārū, the minister of the Rājā of Warangal between 1294 and 1301. The District also contains the old forts of DEODRUG, YĀDGĪR, Alampur, and Malliābād, besides numerous temples and mosques.

Population.

The number of towns and villages in the District, including *jāgīrs* and two large *samasthāns*, is 899. The population at the last three enumerations was: (1881) 398,782, (1891) 512,455, and (1901) 509,249. The chief towns are now RAICHŪR, GADWĀL, KOPPAL, MUDGAL, DEODRUG, KALLŪR, and MĀNVI. Hindus form 90 per cent. of the total population; 51 per cent. of the people speak Telugu, 37 per cent. Kanarese, and 9 per cent. Urdū. The following table shows the chief statistics of population in 1901:—

Tāluk.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Raichūr	441	1	110	88,741	201	+ 5·6	Not available.
Yādgīr	268	1	50	36,075	134	− 31·0	
Alampur	179	...	42	29,294	163	+ 10·8	
Yergara	358	1	77	59,463	166	+ 9·1	
Mānvi	559	1	137	69,306	124	+ 20·3	
Deodrug	514	1	151	76,491	148	+ 2·5	
Jāgīrs, &c.	1,285	1	326	149,879	116	+ 2·9	
Total	3,604	6	893	509,249	141	− 0·7	10,872

In 1905 Yergara was divided between the adjoining *tāluks* of Mānvi, Raichūr, and Deodrug, and Yādgīr was transferred to Gulbarga District.

On the other hand, Lingsugūr, Gangāwati, Kushtagi, and Sindhnūr were added to Raichur from the broken-up Lingsugūr District. In its present form the District comprises eight *tāluks*—Raichūr, Lingsugūr, Mānvi, Alampur, Deodrug, Gangāwati, Kushtagi, and Sindhnūr—besides the *samasthāns* of Gadwāl and Amarchinta, and the two *jāgīr tāluks* of Koppal and Yelbarga belonging to the Sālār Jang family.

The most numerous caste in the District is that of the cultivating Kāpus, numbering 72,900, of whom 53,300 are Lingāyats. Almost equal to them are the hunting Bedars, numbering 72,600. The number of persons supported by agriculture is 56 per cent. of the total. Of the 276 Christians in 1901, 237 were natives.

Agriculture.

Raichūr is situated in the metamorphic and trap regions, and its soils are composed of *regar*, *masab*, *milwa*, and reddish soils. The reddish or lateritic soil is much prized, and so are also the *regar* and *milwa*, but the *masab* is a very poor soil and needs water and heavy manuring. *Regar* predominates in the Raichūr, Mānvi, and Deodrug *tāluks*, where *rabi* crops are extensively raised, while reddish and *milwa* soils are used for *kharīf* crops. In the reddish and *milwa* soils a moderate fall of 12 to 15 inches of rain is sufficient to mature the crop, while *regar* needs 25 to 30 inches.

The tenure of land is mainly *ryotwāri*. In 1901, 1,670 square miles were cultivated, out of a total area of 2,319 square miles of *khālsa* land. The remainder included 127 square miles of cultivable waste and fallows, 120 of forest, and 402 not available for cultivation. Only 36 square miles were irrigated.

The staple food-crops are *jowār* and *bājra*, produced from 781 and 141 square miles of land respectively, or 47 and 8 per cent. of the net area cropped. Cotton was grown on 285 square miles, distributed over all the *tāluks*, while rice and oilseeds covered 33 and 77 square miles.

Since the settlement in 1891, the value of land has increased, and almost the whole of the available area has been taken up, and little extension is now possible. No steps have been taken to improve cultivation by the introduction of new varieties of seed or better agricultural implements.

The cattle are of the ordinary kind, but are strong and well suited for deep ploughing. There is no special breed of ponies, sheep, or goats. In the town of Raichūr, a weekly bazar is held, where cattle, ponies, and sheep are sold. At the annual fair at Gadwāl, a large trade is done in cattle. The District contains numerous grazing areas.

The total irrigated area is only about 36 square miles, which is supplied by 234 tanks and 4,804 wells, all in good repair. In the Yergara *tāluk*, a channel 9 miles long from the Tungabhadra river supplies most of the tanks. Estimates amounting to Rs. 60,000 for improving this channel are awaiting sanction, and, when completed, it

will irrigate a very large extent of land. The largest tank is at Kanjpalli, 2 miles from Yergara, the dam of which is 2 miles long and about 40 feet high.

A small 'reserved' forest, 70 square miles in area, is situated in the Yādgīr *tāluk*, and about 50 square miles are covered with protected and unprotected forests, making a total of 120 square miles. Teak, ebony, rosewood, *bījāsāl* (*Pterocarpus Marsupium*), *nallāmaddi* (*Terminalia tomentosa*), *eppa* (*Hardwickia binata*), sandal-wood, *sendra* (*Acacia Catechu*), and bamboos are found in the 'reserved' tract.

The most important mineral is the auriferous quartz, found in the Mānvi and Deodrug *tāluks*, near the villages of Topaldodi and Wandalli, which was worked by the Deccan Mining Company. Operations have recently diminished at Wandalli and altogether stopped at Topaldodi. Laminated limestone like the Shāhābād stone is also found in Yādgīr, and talc in the Deodrug *tāluk*.

Trade and communications.

There is no important hand industry in the District. Coarse cotton *dhotīs* and *sārīs* are woven everywhere. In the Alampur *tāluk shatranjīs* and printed floorcloths are manufactured, while in the Yādgīr *tāluk* printed screens and tablecloths and furniture and wooden toys are made. Raichūr town is noted for its gilt and coloured soft native slippers, which are exported far and wide, and also for its fancy earthen goblets and drinking vessels.

Four cotton-presses, three at Raichūr and one at Yādgīr, employed 275 hands, and pressed 7,426 tons of cotton in 1901, and an oil and another ginning and pressing factory are under construction. A tannery at Raichūr turns out 500 skins per day, and employs 60 persons. The skins and hides are sent to Bombay, Madras, and Cawnpore. Nitre and salt are prepared in small quantities by lixiviating saline earth; the salt is bitter and is used in making pickles. There is also a distillery at Raichūr.

The principal exports consist of *jowār* and other food-grains, linseed, castor-seed, sesamum, leather and hides, bones and horns, *tarvar* bark, and cotton. The chief imports are salt and salted fish, opium, coco-nuts, refined sugar, kerosene oil, sulphur, camphor, spices, mill-made cloth, yarn, raw silk, and silk and woollen stuffs.

Raichūr town is a centre of commerce, and since the opening of the railway in 1871 it has grown in importance and supports a large commercial population. The trading castes consist of Baljawārs, Lingāyat Komatis, and Mārwāris, who also do a large banking business.

The town of Raichūr is the junction of the Great Indian Peninsula and the Madras Railways, which cross the District from north to south for 62 miles, having seven railway stations in the District, besides Raichūr.

There are altogether 182 miles of roads, of which 84 miles are gravelled, and are maintained by the Public Works department, the others being ordinary fair-weather roads. The latter lead from Raichūr town to Alampur (60 miles), to Deodrug (34), and to Mānvi (24). The metalled roads are the Deosugūr road (13), Raichūr to Wandalli gold-mines (43), the Yergara road (10), and the Raichūr-Lingsugūr road (18 miles). Most of these roads now serve as railway feeders. There are 32 fords and ferries on the Kistna, the Tungabhadra, and the Bhīma, at some of which boats are kept, while at others coracles are used for carrying people and goods across.

Famine.

From old records it appears that this District was the scene of much distress during 1804, 1819, 1833, 1846, 1856, and 1877–8. The effects of the famine of 1846 were felt beyond the borders; but the severest disaster was that of 1877–8, which devastated many villages and caused immense distress both in Raichūr and in the surrounding Districts of the Hyderābād State and of the Bombay and Madras Presidencies. The *kharīf* and *rabi* crops failed during these two years and grain could not be obtained. As an indication of distress, it is reported that gold sold at Rs. 6 or Rs. 7 per tola, i.e. at one-fourth its usual price, and many people sold their children. The State spent large sums of money on relief works and poor-houses to alleviate the distress; but notwithstanding this, many perished, and numerous villages were depopulated, while cattle died by thousands for want of fodder and water. In 1897 some distress prevailed, but timely rain in June relieved the pressure by cheapening the food-grains.

Administration.

The District is divided into three subdivisions: one comprising the *tāluks* of Lingsugūr, Gangāwati, and Kushtagi, under a Second Tālukdār; the second, comprising the *tāluks* of Sindhnūr, Deodrug, and Mānvi, under a Third Tālukdār; and the third, comprising Raichūr and Alampur, under another Third Tālukdār. The First Tālukdār exercises a general supervision over the work of his subordinates. Each *tāluk* is under a *tahsīldār*.

The District civil court is presided over by the *Nāzim-i-Dīwāni*, or the District Civil Judge, and the *tahsīldārs* sit as subordinate civil courts. The *Nāzim-i-Dīwāni* is a joint-magistrate, exercising his magisterial powers during the absence of the First Tālukdār from head-quarters. The Second and Third Tālukdārs and the *tahsīldārs* exercise second and third-class magisterial powers. Serious crime is not heavy in ordinary years, but cattle-thefts and dacoities fluctuate according to the degree of severity of the season.

The revenue system of Malik Ambar appears to have been adopted in the beginning of the seventeenth century. Subsequently villages were let on contract, after fixing the revenue according to the nature

of the lands, and the contractors received 1½ annas per rupee as commission. The *ryotwāri* system, with cash payments, was introduced in 1866. In 1888 the Deodrug and Mānvi *tāluks* were surveyed and settled for fourteen years; and the remaining *tāluks* were settled in 1891, also for the same period. From the survey it was found that the cultivated area had increased by 271 square miles, or 19·6 per cent., and the enhancement of revenue was Rs. 53,821, or 5·6 per cent. The average assessment on 'dry' land is R. 0-12 (maximum Rs. 3, minimum R. 0-2), and on 'wet' land Rs. 5 (maximum Rs. 12, minimum Rs. 2).

The land revenue and the total revenue of the District are given below, in thousands of rupees:—

	1881.	1891.	1901.	1903.
Land revenue	11,51	12,23	11,60	11,94
Total revenue	15,01	23,34	19,82	22,62

Owing to changes of area made in 1905, the land revenue demand is now about 18·4 lakhs.

The District board, in addition to its own work, manages the Raichūr municipality and also supervises the working of the *tāluk* boards, which have been formed in every *tāluk* except Raichūr. Of the total cess, five-twelfths are set apart for local and municipal works, yielding Rs. 25,000 in 1901. In addition, a sum of Rs. 33,000 was contributed from other miscellaneous sources to meet the expenditure in that year, which was Rs. 58,000.

The First Tālukdār is the head of the police, with a Superintendent (*Mohtamim*) as his executive deputy. Under the latter are 7 inspectors, 53 subordinate officers, 398 constables, and 25 mounted police, distributed among 25 *thānas* and an equal number of outposts. Besides the regular police, there are 1,696 rural policemen. The District jail is at Raichūr, and lock-ups are maintained in the five outlying *tāluks*. The District jail can accommodate only 100 convicts, but prisoners whose terms exceed six months are transferred to the Central jail at Gulbarga.

In 1901 the proportion of persons in the District able to read and write was 2·1 per cent. (4·1 males and 0·15 females). The total number of pupils under instruction in 1881, 1891, 1901, and 1903 was 269, 1,255, 2,771, and 2,679 respectively. In 1903 there were 31 primary and 2 middle schools, and the number of girls under instruction was 94. The amount expended on education was Rs. 16,600, of which the State contributed Rs. 10,700 and the remainder was met by the local boards. About 53 per cent. of the total was devoted to primary schools. The total fee receipts amounted to Rs. 1,119.

The District has 5 dispensaries, with accommodation for 14 in-patients. The total number of cases treated during 1901 was 30,535 out-patients and 124 in-patients, and 1,153 operations were performed. The expenditure was Rs. 14,800, of which Rs. 13,500 was paid by the State and the balance from Local funds. There are two dispensaries in the two *samasthāns* of Gadwāl and Amarchinta on the model of the State dispensaries.

During 1901 five vaccinators were engaged in the work of vaccination, and 3,096 persons were successfully vaccinated, or 6·08 per 1,000 of the population.

Raichūr Tāluk.—*Tāluk* in Raichūr District, Hyderābād State. The area in 1901 was 526 square miles, including *jāgīrs*, and the population was 94,695, compared with 89,782 in 1891. It had one town, Raichūr (population, 22,165), the head-quarters of the District and *tāluk*; and 128 villages, of which 18 were *jāgīr*. In 1905 the *tāluk* was enlarged by the addition of part of Yergara. The Kistna river separates it from Mahbūbnagar District in the north. The land revenue in 1901 was 2·6 lakhs. The soils are chiefly alluvial, *regar*, and sandy. The two *samasthāns* of Gadwāl and Amarchinta lie to the east and north-east of this *tāluk*, with populations of 96,491 and 34,147, areas of about 864 and 190 square miles, and 214 and 68 villages respectively. The former contains one town, Gadwāl (population, 10,195).

Raichūr Town.—Head-quarters of the District and *tāluk* of the same name in Hyderābād State, situated in 16° 12′ N. and 77° 21′ E. Population (1901), 22,165, of whom 16,249 were Hindus, 5,664 Musalmāns, and 186 Christians. According to an inscription in the fort on a huge stone 42 by 3 feet, it was built by Gore Gangaya Ruddivāru in 1294. The country round Raichūr was the battle-ground of the ancient Hindu and Jain dynasties, as well as of the Musalmān and Hindu kingdoms of Gulbarga and Vijayanagar. After the decline of the Bahmani power towards the close of the fifteenth century, it formed part of the Bijāpur kingdom. Upon the subjugation of Bijāpur and Golconda by Aurangzeb, Raichūr was garrisoned by the Mughals. A short distance from the west gate of the fortress are the remains of a strongly built palace, now utilized as a jail. The town is the junction of the Madras and the Great Indian Peninsula Railways, 351 miles from Madras and 444 miles from Bombay. The fortifications form a square of large stones 12 feet long by 3 feet thick, laid on one another without any cementing material. They consist of two walls, an inner and an outer, and are surrounded on three sides by a deep ditch, while on the fourth or southern side there is a hill. The outer fortifications and the gateways were constructed by Ibrāhīm Adil Shāh about 1549. The inner fort has two gateways and the outer three. Outside the eastern gate is an old mosque having a single minaret

80 yards high and 10 yards in circumference, with a winding staircase, which was built in 1503 during the reign of Mahmūd Shāh Bahmani. A good view of the surrounding country is obtained from the top of this minaret. The Jāma Masjid in the town was built in 1618. The fort also contains an old gun over 20 feet long. Raichūr has three cotton-presses, a tannery, and a distillery, and is a rising commercial centre.

Raidrug.—*Tāluk* and town in Bellary District, Madras. *See* RĀYADRUG.

Raiganj.—Village in the head-quarters subdivision of Dinājpur District, Eastern Bengal and Assam, situated in 25° 37′ N. and 88° 9′ E., on the Kulik river. Population (1901), 901. Raiganj is an important trade centre, exporting a large quantity of jute.

Raigarh State.—Feudatory State in the Central Provinces, lying between 21° 42′ and 22° 33′ N. and 82° 57′ and 83° 48′ E., with an area of 1,486 square miles. Bilāspur and Sambalpur Districts enclose it on the west and east, while the northern portion of the State projects into the territories of Chotā Nāgpur. Along the southern border flows the Mahānadī river. The head-quarters, Raigarh town, is a station on the Bengal-Nāgpur Railway. The northern half of the State running up to the Chotā Nāgpur plateau consists mainly of forest-clad hills. The Chauwardhal range runs from west to east across its centre, and south of this lie the open plains of Raigarh and Bargarh divided by the Mānd, a tributary of the Mahānadī. The Kelo, another affluent, passes the town of Raigarh. The ruling family are Rāj Gonds, who say they came originally from Wairāgarh in Chānda, and obtained some villages and settled in this locality about the beginning of the eighteenth century. Jujhār Singh, the fifth Rājā, concluded a subsidiary treaty of alliance with the East India Company about 1800, on the annexation by the Marāthās of Sambalpur, to which Raigarh had hitherto been feudatory. In 1833 his son Deonāth Singh crushed a rebellion raised by the Rājā of Bargarh, and as a reward obtained that part of his territories which now constitutes the Bargarh *pargana*. He subsequently did good service in the Mutiny, and his son was made a Feudatory chief in 1867. The present chief, Bhūp Deo Singh, was born in 1869 and installed in 1894, without special restrictions as to the methods of his administration. He speaks English, and exercises a personal control over public business. The population of the State in 1901 was 174,929, having increased by 4 per cent. during the previous decade. The State contains one town, RAIGARH (population, 6,764), and 721 inhabited villages. The density of population is 117 persons per square mile. Raigarh lies on the border-line dividing Chhattīsgarh and the Oriyā country, 80 per cent. of its residents speaking the Chhattīsgarhī dialect and 15 per cent. Oriyā. Its population

is mainly aboriginal, Kawars numbering 30,000 and Gonds 16,000. Next to these, Gāndas and Rāwats are the most numerous castes.

Black soil is found in small quantities towards the Bilāspur border, but the yellow rice land of Chhattīsgarh extends over most of the State. About 470 square miles, or 32 per cent. of the total area, were occupied for cultivation in 1904, of which 375 square miles were under crop. About 80 per cent. of the cultivated area is under rice, and next to this the most important crops are pulses (28,000 acres), *til* (9,000), and *kodon* (8,000). The cropped area has increased by 11 per cent. since 1881. More than 1,800 tanks have been constructed for irrigation, which supply water to 7,000 acres under normal circumstances. About 500 square miles, or a third of the whole area, are under forest. The principal timber trees are *sāl* (*Shorea robusta*), *sāj* (*Terminalia tomentosa*), and *bījāsāl* (*Pterocarpus Marsupium*). Iron ore and coal have been found in the State; the former is worked by native methods, and agricultural implements are exported to the neighbouring territories. *Tasar* silk cloth of a superior quality is made at Raigarh. Among the local products may be noted cucumber seeds, which are exported to a considerable extent. The main line of the Bengal-Nāgpur Railway passes through the centre of the State, with stations at Raigarh, Nāharpāli, Khursiā, and Jamgaon. Four miles of metalled and 212 miles of unmetalled roads have been constructed. The principal routes are those from Raigarh to Sārangarh, Padampur, and Lailangā, and from Khursiā to Dhabrā.

The total revenue in 1904 was Rs. 1,50,000, of which Rs. 68,000 was derived from land, Rs. 34,000 from forests, and Rs. 30,000 from excise. A cadastral survey has been carried out, and the system of land revenue assessment is based on that in force in British territory. The revenue is settled with the headmen of villages, who are allowed to retain a portion of the 'assets,' but have no proprietary rights. The incidence of land revenue is less than 4 annas per occupied acre. The total expenditure in 1904 was Rs. 1,31,000, the principal items being Government tribute (Rs. 4,000), expenses of the ruling family (Rs. 34,000), administration in all departments (Rs. 55,000), and public works (Rs. 31,000). The tribute is liable to periodical revision. The expenditure on public works since 1893, under the supervision of the Engineer of the Chhattīsgarh States division, has amounted to Rs. 1,36,000, including the construction of the roads already mentioned, a number of tanks, various buildings for public offices and schools, and a residence for the chief. The educational institutions comprise 24 schools with 1,786 pupils, including English and vernacular middle schools and two girls' schools. The expenditure on education in 1904 was Rs. 7,800. In 1901 the number of persons returned as literate was 2,963, the proportion of males able to read and write

being 3·3 per cent. A dispensary is maintained at Raigarh town, at which 37,000 persons were treated in 1904. A Political Agent under the supervision of the Commissioner, Chhattīsgarh Division, controls the relations of the State with Government.

Raigarh Town.—Head-quarters of the Feudatory State of the same name, Central Provinces, situated in 21° 54′ N. and 83° 24′ E., on the Kelo river, and on the Bengal-Nāgpur Railway, 363 miles from Calcutta. Population (1901), 6,764. The town contains an old fort built at the time of the Marāthā invasions. Raigarh is a centre for local trade, and is increasing in importance. The principal industry is the manufacture of *tasar* silk cloth, considerable quantities of which are exported. Glass bangles are also made. Raigarh possesses an English school, a primary school, a girls' school, and a dispensary.

Raigarh (or 'The Royal Fort,' originally called *Rairi*, and known to the early European traders as 'the Gibraltar of the East').—Hill fort in the Mahād *tāluka* of Kolāba District, Bombay, situated in 18° 14′ N. and 73° 27′ E., 32 miles south-west from Poona. It stands on the Western Ghāts, and was regarded in the last century as one of the greatest strongholds of India. Its scarped sides and long top form a great wedge-shaped block, cut off from the Western Ghāts by a deep valley about a mile broad at the base and 2 miles across from crest to crest. The hill-top, 2,851 feet above sea-level, stretches about a mile and a half from east to west by a mile from north to south. On the west, south, and east, the hill-sides are so steep that, excepting the gateways in the west and south faces, there are no artificial defences. The north-west face is protected by a main line of masonry and two upper walls or portions of walls where the natural scarp is imperfect. Its size, strength, and its easy communication with the Deccan and with the sea must from early times have made Raigarh an important fortress. But its time of magnificence as the capital of a great sovereign was from 1664 to 1680, the last sixteen years of Sivajī's reign.

In the twelfth century Rairi was the seat of a family of petty Marāthā chiefs. In the fourteenth century these chiefs acknowledged the Vijayanagar princes as their overlords. About the middle of the fifteenth century, Alā-ud-dīn Shāh Bahmani II compelled the Rairi chief to pay tribute. In 1479 Rairi passed to the Nizām Shāhi Sultāns of Ahmadnagar, and was held by them till 1636. On the final conquest of Ahmadnagar, the Mughals made Rairi over to the Adil Shāhi Sultāns of Bijāpur. Under the name of Islāmgarh, it was then made over to the Sīdī of Janjīra, and garrisoned by a body of Marāthās. In 1648 Rairi fell into the hands of Sivajī, who in 1662, after diligent search, chose the hill for his capital, changing the name to Raigarh. The royal and public buildings are said to have numbered three

hundred stone houses, including palaces, mansions, offices, a mint, granaries, magazines, quarters for a garrison of 2,000 men, a market nearly a mile in length, and a number of rock-cut and masonry cisterns. While the hill-top was being covered with these buildings, care was taken to complete its defences. In 1664 Sivajī enriched Raigarh with the plunder of Surat, and made it the seat of his government. In the same year, after the death of his father Shāhjī, he assumed the title of Rājā, and struck coins in his own name. In 1674 Sivajī was crowned with much splendour as an independent prince at Raigarh, and died here six years afterwards in 1680. A description of the coronation, as reported by an English eyewitness, is given by Fryer. In 1690 Raigarh was taken by Aurangzeb; but having reverted to the Marāthās during the decay of the Muhammadan power, it was invested by a British force in April, 1818, and surrendered after a bombardment from the hill spur called Kāl-kai lasting fourteen days. A treasure of 5 lakhs in coin was discovered among the ruins of the fort.

Raika.—Petty State in REWĀ KĀNTHA, Bombay.

Raikot (*Raekot*).—Town in the Jagraon *tahsīl* of Ludhiāna District, Punjab, situated in 30° 39′ N. and 75° 36′ E., 27 miles from Ludhiāna town. Population (1901), 10,131. In the seventeenth century it was made the capital of the Rais of Raikot, whose palaces are still standing; but it declined rapidly after their overthrow, and is now of no commercial importance. The municipality was created in 1867. The income during the ten years ending 1902–3 averaged Rs. 6,800, and the expenditure Rs. 6,500. In 1903–4 the income was Rs. 7,700, chiefly derived from octroi; and the expenditure was Rs. 7,400. Raikot possesses a vernacular high middle school maintained by the municipality, and a Government dispensary.

Raingarh.—One of the Simla Hill States, Punjab. *See* RĀWAIN.

Raipur District[1].—District in the Chhattīsgarh Division of the

[1] In 1906 the constitution of Raipur District was entirely altered by the formation of the new Drug District, in which the western portion of Raipur, with an area of 3,444 square miles and a population of 545,235 persons, was included. This area comprised the whole of the Drug *tahsīl* and portions of the Simgā and Dhamtarī *tahsīls*. At the same time an area of 706 square miles, with a population of 99,402 persons, was transferred to Raipur from Bilāspur, the line of the Seonāth and Mahānadī rivers becoming the boundary of the new District. The new Raipur District was divided into the four *tahsīls* of RAIPUR, DHAMTARĪ, MAHĀSAMUND, and BALODĀ BĀZĀR, the old Simgā *tahsīl* being abolished, while Drug was included in the new District of that name. On the transfer of Sambalpur District to Bengal, the Phuljhar *zamīndāri*, with an area of 842 square miles and a population of 102,135 persons, was added to the Mahāsamund *tahsīl*. The area of the reconstituted Raipur District is 9,831 square miles, and the population of that area in 1901 was 1,096,858 persons, compared with 1,125,019 in 1891. The decrease in population during the decade was $2\frac{1}{2}$ per cent. The density is 112 persons per square mile. The District contains

Central Provinces, lying between 19° 50′ and 21° 53′ N. and 81° 25′ and 83° 38′ E., with an area of 11,724 square miles. The District occupies the southern portion of the Chhattīsgarh plain, or upper basin of the Mahānadī, and includes also tracts of the hilly country surrounding it on all sides except the north. It was the largest District in the Province up to 1906, but since its reconstitution it has a smaller area than Chānda.

Physical aspects.

On the north-western border a narrow strip of the Sātpurā range enters the District, and after a break of open country comprised in the Nāndgaon and Khairāgarh States the hills again appear on the south-west. On the south and west they occupy a much larger area, stretching almost up to the Mahānadī and extending over 5,000 square miles of more or less broken country. The greater part of the hilly tract is included in the three groups of estates known as the north-western, south-western, and south-eastern *zamīndāris*, the third being much the largest and most important. The plain country, covering an area roughly of 5,000 square miles, lies principally to the north-west of the Mahānadī, with a few isolated tracts to the south. The Government forests consist practically of two large blocks in the south and east of the District, but extensive areas in the *zamīndāris* are also covered with jungle. The hills are generally of only moderate elevation, most of the peaks having an altitude of a little over 2,000 feet, while only a few rise above 2,500, and one peak between Bindrā-Nawāgarh and Khariār reaches 3,235 feet. The general slope of the plain is to the north-east, Nāndgaon, just beyond the western border, having an elevation of 1,011 feet, and Bhātāpāra, beyond the eastern boundary in Bilāspur, of 888. The two main rivers are the Mahānadī and the Seonāth. The Mahānadī flows in a north-easterly direction for about 125 miles in the District, its principal tributary being the Pairī, which joins it at Rājim. The Sondhāl, which borders the Bindrā-Nawāgarh *zamīndāri* and flows into the Pairī, is also a stream of some importance. The Seonāth enters the District on the south-west, and flows north and east in a very tortuous course for about 125 miles, until after a short bend into Bilāspur it joins the Mahānadī on the border of the two Districts. The Khārūn river, which flows by Raipur town, is a tributary of the Seonāth. The general character of the Mahānadī and the rivers in the east of the District is very different from that

three towns—RAIPUR, DHAMTARĪ, and ARANG—and 4,051 inhabited villages. It includes 11 *zamīndāri* estates with a total area of 4,899 square miles, of which 2,382 are forest. Outside the *zamīndāris*, Government forest covers 1,337 square miles. The approximate land revenue demand in 1902-3 on the area now constituting the District was 6·80 lakhs. The article refers almost throughout to Raipur District before its reconstitution, material not being available for the treatment of the new area.

of the Seonāth and its tributaries. The latter generally flow over a rocky or gravelly bottom, and consequently retain water for the whole or the greater part of the year; while the beds of the former are wide wastes of sand, almost dry for more than half the year, and at no time, except during high flood, containing much water. The open country is an undulating plain, poorly wooded, especially in the black-soil tracts, but thickly peopled and closely cultivated.

The plains are occupied by Lower Vindhyan rocks, consisting of shales and limestones with subordinate sandstones, resting upon thick, often quartzitic, sandstones, which form low hillocks fringing them on all sides except the north. Beyond these, the bordering hills are composed of gneiss and quartzite, and of sandstone rocks intersected with trap dikes. The blue limestone crops out in numerous places on the surface, and is invariably found in the beds of the rivers. The stratum below the subsoil is a soft sandstone shale, covered generally by a layer of laterite gravel; and in many places the shale has been converted into a hard, vitrified sandstone, forming an excellent building material.

Teak occurs in the western forests of the District, but is never abundant. In the east and south the forest consists of *sāl* (*Shorea robusta*), but it is often of a scrubby character. With the *sāl* are associated the usual species of *Woodfordia*, *Indigofera*, *Casearia*, *Phyllanthus*, *Bauhinia*, *Grewia*, *Zizyphus*, *Flueggea*, and other shrubs and small trees. The remaining forests are of the usual Central Provinces type, teak being associated with *sāj* (*Terminalia tomentosa*), *lendiā* (*Lagerstroemia parviflora*), *karrā* (*Cleistanthus collinus*), and *bījāsāl* (*Pterocarpus Marsupium*). *Babūl* (*Acacia arabica*) is very common in the open country. *Mahuā* (*Bassia latifolia*) and mango are plentiful in the south of the District, but not so common in the west and north, where in places the country is markedly bare of trees. The heavy climbers include *Butea superba*, *Spatholobus Roxburghii*, and *Millettia auriculata*. The herbaceous vegetation, consisting of grasses and of species of *Compositae*, *Leguminosae*, *Acanthaceae*, and other orders, though conspicuous during the rainy season, withers away in the hot weather.

In proportion to their extent the forests are now only sparsely inhabited by game. Buffalo and bison are found in small numbers in the east and south-east. Tigers and leopards are fairly common, but deer of all kinds are rare, and good heads are seldom obtained. Wild dogs are numerous and are very injurious to the game.

The heat is especially great in the summer months, on account of the red gravel soil and the closeness of rock to the surface. Fever is very prevalent in the autumn, and epidemics of cholera have been frequent. This may be attributed to the universal preference of tank to well water for drinking purposes.

The annual rainfall averages 55 inches. The supply is fairly regular, but its distribution is capricious. It is noticeable that certain tracts of the Simgā *tahsīl*, which have been entirely denuded of forest, appear to be especially liable to a deficient rainfall.

History.

Chhattīsgarh seems to have been inhabited in the earliest times by Bhuiyās and other Mundā races; if so, they were conquered and driven to the hills by the Gonds, by whom the first regular system of government was founded. Traditions describe the Gond conquest of Bindrā-Nawāgarh, and the victories of their heroes over the barbarian giants. It is impossible to say when Raipur became part of the dominions of the ancient Haihaivansi dynasty; but it appears to have been cut off from the Ratanpur kingdom, and separately governed by a younger branch of the reigning family, about the eleventh century. Raipur probably continued from this period to be administered as a separate principality, in subordination to the Ratanpur kingdom, by a younger branch of the Haihaivansi family; but nothing is known of the separate fortunes of the Raipur house until shortly before the invasion of the Marāthās in the eighteenth century. In 1741 the Marāthā general, Bhāskar Pant, while on his way to attack Bengal, took Ratanpur and annexed the kingdom; and in 1750 Amar Singh, the representative of the younger branch ruling in Raipur, was quietly ousted. Between 1750 and 1818 the country was governed by the Marāthās, whose administration was of the most oppressive kind, having the sole end of extracting the largest possible amount of revenue from the people. Insurrections were frequent, and the eastern tracts of Raipur were laid waste by the incursions of Binjhāls from the neighbouring hills of Sonākhān. Between 1818 and 1830 the Nāgpur territories were administered by the British Resident. From 1830 to 1853 the District was again administered by Marāthā *Sūbahs* on the system organized by the British officers, and on the whole successfully. In 1853 Chhattīsgarh became British territory by lapse, and Bilāspur was separated from Raipur and made a separate District in 1861. During the Mutiny Chhattīsgarh was almost undisturbed. The commencement of disaffection on the part of the native regiment stationed at Raipur was promptly quelled by the three European officers, who hanged the ringleaders on parade with their own hands.

Archaeological remains are numerous, showing that the early Hindu civilization must have extended over most of the District. Those of ARANG, RĀJIM, and Sirpur are the most important. There are also interesting temples at Sihāwa, Chipti, Deokut, and Balod in the Dhamtarī *tahsīl*, at Khalāri and Narāyanpur in the north-east of the District, and at Deo Balodā and Kunwāra near Raipur town. Some Buddhist remains have been discovered at Drug, Rājim, Sirpur, and

Turturiā. The line of one of the most important roads of ancient times may be traced through this part of the country, leading from near Bhāndak, formerly a large city, towards Ganjām and Cuttack.

Population.

The population of the District at the last three enumerations was as follows: (1881) 1,405,171; (1891) 1,584,427; and (1901) 1,440,556. Between 1881 and 1891 the increase was 10 per cent. in the *mālguzāri* area, the decade being generally prosperous, and 24 per cent. in the *zamīndāris*, but the latter figure must be attributed partly to greater accuracy of enumeration. In the last decade the loss of population was 9 per cent., the District having been severely affected in both famines. The District contains three towns—RAIPUR, DHAMTARĪ, and ARANG—and 4,051 inhabited villages. Statistics of population of the reconstituted District, based on the Census of 1901, are shown below:—

Tahsil.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Raipur	1,016	2	493	246,514	243	− 2.6	7,254
Mahāsamund	5,284	...	2,042	398,075	75	+ 10.5	3,831
Balodā Bāzār	1,933	...	975	264,063	137	− 17.1	3,603
Dhamtarī	1,598	1	541	188,206	118	− 2.5	4,433
District total	9,831	3	4,051	1,096,858	112	− 2.5	19,121

Nearly 88 per cent. of the population speak the Chhattīsgarhī dialect of Eastern Hindī, 6 per cent. Oriyā, 4 per cent. Hindī, and rather less than 6 per cent. Marāthī. Only about 8,000 Gonds are returned as speaking their own language. The Oriyā speakers live principally in the Khariār *zamīndāri* adjoining Sambalpur. In 1901, 90 per cent. of the people were Hindus and 8 per cent. Animists. There were rather less than 18,000 Muhammadans, of whom 6,000 lived in towns. Members of the Kabīrpanthī sect of Hindus numbered 162,175, and the Satnāmis 224,779 persons. The Kabīrpanthīs are mainly Pankās or Gāndas who have adopted the tenets of the sect, but several other castes also belong to it. The main distinction of a Kabīrpanthī in Chhattīsgarh is that he abstains from meat and liquor. The Satnāmis are practically all Chamārs.

The most important castes numerically are Chamārs (245,000), forming 17 per cent. of the population; Gonds (216,000), 15 per cent.; and Ahīrs or Rāwats (145,000), 10 per cent. The principal landholding castes are Brāhmans (26,000), Kurmīs (66,000), Baniās (5,000), Telis (232,000), and Marāthās (3,000). The Brāhmans are both Marāthā and Chhattīsgarhī. The former are said to have settled in Raipur

after the return of Chimnājī Bhonsla's expedition to Cuttack, when they obtained grants of land for their maintenance.

Christians number 3,499, including 3,294 natives, of whom the large majority belong to the Lutheran Church. There are stations of the German Evangelical Church at Raipur and Bisrāmpur, of the American Mennonite Mission at Dhamtarī, and of the Methodist Episcopal Church at Raipur. A large number of Chamārs have been converted by the Bisrāmpur mission.

Agriculture.

In the north-west of the *mālguzāri* area, and round Dhamdā and Deorbijā, lies a rich black-soil tract, which is well adapted to the growth of wheat and other spring crops, but owing to its undulating surface does not lend itself readily to embankment, and is in consequence relatively unsuitable for rice. In the Dhamtarī, Balod, and Rājim *parganas* the soil is likewise black, but here the country is quite flat, and is therefore all embanked. Rice is the chief crop, and most of the land is double cropped. To the east of the Mahānadī black soil is almost unknown, and yellow and red soils prevail; the surface is fairly even. Ordinarily the amount of land left fallow is very small, consisting of the poorest soil, for which periodical resting fallows are required. Old fallow land was almost unknown at the last regular settlement, though it has increased in recent years. Rice is manured to as large a degree as the cultivator can afford, but rarely any other crop. The silt from the beds of tanks is frequently dug up and placed on the fields, and is of considerable advantage.

Of the total area of the District, 50 per cent. is included in the *zamīndāri* estates, 20 square miles have been allotted on the *ryotwāri* system, 106 square miles are held wholly or partially free of revenue, and 4,340 acres have been sold outright under the Waste Land Rules. The remainder is held on the ordinary *mālguzāri* tenure. In 1903–4 the classification showed 1,366 square miles of Government forest, 549 square miles not available for cultivation, and 2,440 square miles of cultivable waste other than fallow [1]. The remaining area, amounting to 5,002 square miles or 62 per cent. of the total (excluding Government forest), was occupied for cultivation. Except in the *zamīndāri* estates, the area of forest land available for cultivation is small. The total cropped area was 4,759 square miles, of which 713 square miles were double cropped. Rice is the staple crop of the District, being grown on 2,022 square miles. Its cultivation is conducted almost wholly on the *biāsi* system: that is, of ploughing up the young plants when they are a few inches high. *Kodon* occupies 985 square miles, wheat 264, the pulses *urad*, *mūng*, and *moth* 531, gram 97, linseed 237, and *til* 157 square miles. Wheat is usually sown in unembanked black-soil

[1] From these statistics 2,366 square miles of waste land in the *zamīndāris*, which have not been cadastrally surveyed, are excluded.

fields, and if the winter rains fail is frequently damaged by white ants. Though the area under linseed is small in comparison with the total, Raipur is one of the most important Districts in the Province for this crop.

The practice of raising second crops in rice-fields has sprung up within the last forty years, double crops being grown on as much as 940 square miles when the autumn rains are favourable. The methods of cultivation have hitherto been very slovenly and backward; but with the rise in the prices of agricultural produce, an improvement is being manifested, and the advantages of manure and irrigation have begun to be appreciated. An experimental farm has been instituted at Raipur by the Agricultural department. During the decade ending 1904 Rs. 47,000 was advanced under the Land Improvement Loans Act and 19 lakhs under the Agriculturists' Loans Act. A considerable proportion of this latter sum, however, consisted of grants and loans to *mālguzārs* on special terms for the construction or improvement of tanks in the famine of 1900 and the scarcity of 1903.

The cattle of the District are small and underfed, and no care is exercised in breeding. Animals imported from Nāgpur or Bastar are, as far as possible, used for spring-crop cultivation. Buffaloes are kept only by the *mālguzārs* and better-class tenants. They are especially useful for ploughing the rice-fields when flooded, carting grain, and drawing timber from the forests. They are principally imported from the northern Districts by the caste of Basdewās. Very few ponies are kept, and they are scarcely bred at all. Landowners and tenants who have carts for agriculture use them if they have to make a journey, and others go on foot. Light carts with trotting bullocks from Nāgpur have been introduced into the Dhamtarī *tahsīl*, but are not much used as yet. The number of goats and sheep is not large in proportion to the size of the District. The former are kept for food, the latter for their wool used in the manufacture of country blankets. Members of the professional shepherd caste are not numerous.

Irrigation is not at present a feature in the agriculture of the District. In a normal year, until recently, only a little more than 30 square miles received this aid. The statistics for 1903–4 show nearly 15 square miles as irrigated, of which 3 were supplied from tanks and 7 from wells. But in a favourable season 50 square miles can now be irrigated. It is estimated that the tanks constructed during the famine of 1900 afforded protection to an additional area of about 36 square miles. There are now 3,200 tanks in the District, or less than one to each village on an average. The distribution, however, varies greatly, the number rising to four and five per village in certain tracts. Until recently tanks have generally been constructed primarily to afford a water-supply to the villagers, and have only been used for irrigation

when it was essential to save the crops from complete failure. Schemes have been prepared by the Irrigation department for canals in the tracts between the Mahānadī and Khārūn, and the Khārūn and Seonāth, which promise to yield substantial results. There are about 11,000 irrigation wells in the District, most of them temporary, supplying on an average about an acre each. Well-irrigation is practically confined to garden crops and sugar-cane.

Forests, &c.

The Government forests cover 1,366 square miles, or 20 per cent. of the District area, excluding the *zamīndāris*. Two main types may be distinguished, one consisting of *sāl* (*Shorea robusta*), and the other of mixed forest. The *sāl* forests constitute about a quarter of the total, being situated in the east and south. There is at present little demand for produce from them, owing to the difficulties of transport. Bamboos are found mainly in the *sāl* forests; they are cut in the Sihāwa range and floated down the Mahānadī to Dhamtarī. Only a few small patches of teak forest exist. The mixed forest consists of the usual species, *sāj* (*Terminalia tomentosa*) and *bījāsāl* (*Pterocarpus Marsupium*) being the principal timber trees. *Dhāman* (*Grewia vestita*) is found in the *sāl* forests, and is used by the Gonds for the manufacture of bows and spear handles. In 1903–4 the forest revenue amounted to Rs. 48,000.

No mines are worked at present. Iron ores are found in abundance in the western and southern parts of the District, and some of these are very rich. A sample from Dhalli in the Dondī-Lohāra *zamīndāri* yielded on assay nearly 73 per cent. of metallic iron. Copper and lead ores have been found at Chicholī. Lithographic stones of a serviceable kind have been obtained from the Lower Vindhyan rocks. Red ochre is found in the Gandai *zamīndāri*, and chalk in one or two villages near Dhamdā.

Trade and communications.

There are no important industries. *Tasar* silk is woven, but to a very much smaller extent than in Bilāspur or Sambalpur. Most of the larger villages contain a number of cotton-weavers belonging to the Pankā, Mehrā, and Koshtā castes, who produce coarse cloth. Mill-spun thread has entirely supplanted the home-spun article; and cloth woven in Indian mills is rapidly gaining in popularity at the expense of that woven locally, the former being produced in the same patterns as the latter and being cheaper. Ornaments and vessels of bell-metal are made at Drug, Dhamdā, Nawāpāra, and Raipur, and glass bangles at Simgā, Neorā, and Kurrā. A little iron is smelted by native methods in the Deorī and Dondī-Lohāra *zamīndāris*, but it cannot compete with English iron. Raipur has one factory owned by a Cutchī Muhammadan, which contains four cotton-gins and a mill for pressing linseed and castor oil.

The most important export is rice, which goes to the northern Districts of the Central Provinces, to Berār, Hyderābād, and Bombay. Wheat, *til*, and linseed are also exported. *Til* oilcake is sent to Berār from the factory at Raipur town. Of forest products, teak, *sāl*, and *bījāsāl* timber are exported in considerable quantities from the *zamīndāris*. Lac is sent to Mirzāpur, and *mahuā* flowers occasionally to Nāgpur and Kamptee for the manufacture of liquor. Myrabolams are exported to Bombay. As in other Districts in the Central Provinces, a considerable trade has recently sprung up in the export of dried meat. Sea-salt from Bombay is generally used, though small quantities are also brought from Ganjām. Sugar comes principally from the Mauritius, that from Mirzāpur being slightly more expensive. *Gur* or unrefined sugar is chiefly imported from Bengal and Bombay, and a small amount is obtained from Bastar. Cotton thread is received principally from the Hinganghāt, Pulgaon, and Badnera mills, and cotton cloth from Cawnpore, Nāgpur, and Nāndgaon. English cloth and metals, such as iron, brass, and copper, are also imported. Brass vessels come from Mirzāpur and Cuttack, and leathern shoes from Cawnpore. Excluding a European firm which has an agency at Raipur town, the grain trade is in the hands of Cutchī Muhammadans. Hardware and stationery are imported and retailed by Bhātias, while Mārwāri Baniās trade in cloth and thread, and carry on business in money-lending and exchange. Balodā Bāzār near Simgā has a large weekly cattle market. The other leading bazars are at Barondā and Barekel in the Raipur *tahsīl*, Utai, Rānītarai, Arjundah, and Gandai in Drug, Kurud in Dhamtarī, and Neorā in Simgā.

The direct line of the Bengal-Nāgpur Railway passes through the District, with a length of 60 miles and 8 stations within its limits. From Raipur town a branch narrow-gauge line leads to Dhamtarī, distant 46 miles, and from Abhānpur, a station on this line, there is also a branch of 10½ miles to Rājim. The chief routes for cart traffic are the Lawan-Bhātāpāra, Raipur-Khariār, Tildā-Bemetāra, and Dhamtarī roads. The total length of metalled roads in the District is 69 miles, and of unmetalled roads 665 miles; the annual cost of maintenance is Rs. 88,400, practically all the roads being in charge of the Public Works department. There are avenues of trees on 185 miles. The *zamīndāri* estates also contain 109 miles of roads constructed from their private funds.

Famine.

Raipur District has suffered from failures of crops on many occasions. Information about any except the recent famines is of the scantiest, but distress is recorded as having occurred in the years 1828–9, 1834–5, and 1845–6. In 1868–9 the rains failed almost as completely as in 1899–1900. There was severe distress, accompanied by migration and desertion of villages.

The famine of 1868–9 was followed by a period of twenty-five years of prosperity, broken only by a partial failure of the rice crop in 1886. In 1895 the monsoon failed prematurely, and there were no cold-season rains, with the result that both the autumn and spring crops were poor. This was followed in 1896 by a complete cessation of the rains at the end of August, and a total failure of the rice crop, only slightly relieved by a moderate spring harvest on a reduced area. Relief operations extended throughout the year 1897, the numbers rising to over 100,000 persons, or nearly 7 per cent. of the population, at the end of April; and the total expenditure was 18·5 lakhs. The year 1897 was succeeded by two moderate harvests; and in 1899 the monsoon again completely failed, the total out-turn being only one-sixth of the normal. More than 700,000 persons, or 44½ per cent. of the population, were in receipt of some form of assistance in August, 1900, and the total expenditure was 126·5 lakhs. In 1902–3 the rice crop again failed partially, and distress occurred in certain areas of the District. The numbers on relief rose to 60,000 in April, 1903, and the total expenditure was about 5 lakhs.

Administration.

The Deputy-Commissioner is aided by four Assistant and Extra-Assistant Commissioners. For administrative purposes the District is divided into four *tahsīls*, each of which has a *tahsīldār* and a *naib-tahsīldār*, while additional *tahsīldārs* have been posted to Raipur and Mahāsamund. The forests are in charge of an officer of the Forest service.

The civil judicial staff consists of a District and two Subordinate Judges, and a Munsif for each of the Raipur, Balodā Bāzār, and Dhamtarī *tahsīls*. The Divisional and Sessions Judge of the Chhattīsgarh Division has jurisdiction in the District, and the *zamīndārs* of Khariār and Fingeshwar are entrusted with civil powers. Of important civil litigation, suits on mortgage-deeds with condition of foreclosure are noticeably frequent. The commonest forms of serious crime are cattle-theft and cattle-poisoning by arsenic.

When the country first came temporarily under British administration in 1818, the whole revenue of Chhattīsgarh amounted to Rs. 2,90,000. Under the beneficent rule of the Superintendent, Colonel Agnew, the prosperity of the country rapidly increased, and the revenue, which was then settled annually, rose by 21 per cent. in eight years. On the termination of this period, British officials were replaced by Marāthā *Sūbahs*; but the methods laid down by Colonel Agnew were on the whole adhered to, and prosperity continued. In 1868 the revenue of the District had increased to 3·18 lakhs. The first long-term settlement was made in 1868 for a period of twenty years, and under it the revenue was raised to 5·52 lakhs, still, however, giving an incidence per cultivated acre of only 5 annas 2 pies for the

area held in ordinary proprietary right. The extreme lowness of the assessments in Chhattīsgarh may be attributed to the patriarchal system of the Haihaivansi kings, the absence of any outside demand for produce, and the payment of rents in kind, the rents themselves being entirely free from any economic influences, and being regarded as contributions for the support of the central administration. The settlement of 1868 was the first in which the assessment was based on a regular survey, and at this time also proprietary rights were conferred. During its currency a great transformation took place in the conditions of agriculture. The District was brought within reach of the railway, exports of grain rose with a bound, the value of land rapidly increased, and prices doubled. About two-fifths of the *mālguzāri* area, consisting of the Drug *tahsīl*, with parts of the others, was summarily resettled in the years 1884–7; and a regular settlement of the rest of the *mālguzāri* area, with a revision of revenue in the *zamīndāris*, was effected between 1885 and 1889. The term of settlement was fixed at nine or ten years in the summarily settled and at twelve years in the regularly settled tracts, the revenue being raised to 8·61 lakhs, or by 56 per cent. The average rental incidence per acre was R. 0–10–3 (maximum R. 0–14–5, minimum R. 0–3–11) and the corresponding revenue incidence was R. 0–5–8 (maximum R. 0–8–4, minimum R. 0–2–6). Preparations for a fresh regular settlement began in 1896; but owing to famine and serious agricultural deterioration, only the Drug *tahsīl* was resettled for eight years, while summary abatements were proposed in some of the worst affected tracts. A fresh settlement was commenced in 1904.

The collections of land and total revenue in recent years are shown below, in thousands of rupees :—

	1880–1.	1890–1.	1900–1.	1903–4.
Land revenue . .	6,48	8,62	7,68	9,05
Total revenue . .	10,34	15,18	12,76	14,98

Local affairs outside municipal areas are managed by a District council and six local boards, having jurisdiction over the four *tahsīls* and the eastern and western *zamīndāri* estates respectively. The income of the District council in 1903–4 was Rs. 97,000, while the expenditure on education was Rs. 48,000, on public works Rs. 26,000, and on medical relief Rs. 13,000. RAIPUR and DHAMTARĪ are municipal towns.

The force under the District Superintendent of police consists of 737 officers and men, including a special reserve of 25, and 8 mounted constables, besides 4,340 watchmen for 4,051 inhabited towns and villages. The District possesses a second-class Central jail, with accommodation for 911 prisoners, including 41 female prisoners.

The daily average number of prisoners in 1904 was 591. The industries carried on in the jail comprise cloth-weaving and the manufacture of mats from aloe fibre.

In respect of education Raipur stands last but two among the Districts of the Province. In 1901 only 3·7 per cent. of the male population could read and write, and only 929 females were returned as literate. The percentage of children under instruction to those of school-going age is 9. Statistics of the number of pupils under instruction are as follows: (1880–1) 14,054; (1890–1) 14,364; (1900–1) 18,766; and (1903–4) 18,644, including 2,612 girls. The educational institutions comprise a high school at Raipur town, a Rājkumār College for the sons of Feudatory chiefs and *zamīndārs*, three English middle schools, four vernacular middle schools, and 215 primary schools. The expenditure on education in 1903–4 was Rs. 1,06,000, of which Rs. 80,000 was derived from Provincial and Local funds, and Rs. 16,000 from fees.

The District has 12 dispensaries, with accommodation for 125 in-patients. In 1904 the number of cases treated was 162,653, of whom 1,340 were in-patients, and 2,134 operations were performed. The total expenditure was Rs. 22,000, chiefly met from Provincial and Local funds. Two leper asylums, at Raipur town and Dhamtarī, are supported by allotments from Local funds and charitable subscriptions. They contain 195 patients, and the annual expenditure is about Rs. 19,000. Raipur town has a veterinary dispensary.

Vaccination is compulsory only in the municipality of Raipur. The number of persons successfully vaccinated in 1903–4 was 32 per 1,000 of the District population.

[L. S. Carey, *Settlement Report* (1891). A District Gazetteer is being prepared.]

Raipur Tahsīl.—*Tahsīl* of the District of the same name, Central Provinces, lying between 20° 56′ and 21° 30′ N. and 81° 28′ and 82° 12′ E. In 1901 the area was 5,802 square miles, and the population 564,102 persons. By the redistribution of areas consequent on the formation of the new Drug District, the constitution of the Raipur *tahsīl* was radically altered; and it is now a small open plain lying between the Mahānadī and the border of Drug District, thickly populated and closely cultivated, with an area of 1,016 square miles. The population of this portion in 1901 was 246,514, compared with 253,058 in 1891, the density being 243 persons per square mile. The *tahsīl* contains two towns, RAIPUR (population, 32,114), the head-quarters of the District and *tahsīl*, and ARANG (6,499); and 493 inhabited villages. The land revenue demand in 1902–3 on the area of the new *tahsīl* was approximately 1·73 lakhs.

Raipur Town.—Head-quarters of the Chhattīsgarh Division and of

the District of the same name, Central Provinces, situated in 21° 14′ N. and 81° 39′ E., on the Bengal-Nāgpur Railway, 513 miles from Calcutta and 188 miles from Nāgpur, in an open plain about 4 miles from the Khārūn river. Raipur is the junction for the branch narrow-gauge line to Rājīm and Dhamtarī. It is the sixth largest town in the Province, and had a population in 1901 of 32,114 persons, the increase during the decade having been 35 per cent. The population at previous enumerations was: (1872) 19,119, (1881) 24,946, and (1891) 23,758. In 1901 there were 25,492 Hindus, 5,302 Muhammadans, and 592 Christians, of whom 88 were Europeans or Eurasians.

Raipur was made the head-quarters of Chhattīsgarh in 1818. The town is believed to have existed since the ninth century, the old site being to the south-west of the present one and extending to the river. The most ancient building is the fort, said to have been constructed in 1460, on two sides of which are large tanks, while within it are numerous temples of comparatively little interest. The unfinished Dudhādari temple is probably unrivalled as an instance of modern elaborate carving in the Central Provinces, but it is disfigured by sculpture of the most indecent type. A number of fine tanks have been constructed. Raipur is the head-quarters of the Commissioner and Divisional Judge, Chhattīsgarh Division, the Political Agent of the Chhattīsgarh Feudatory States, an Inspector of Schools, a Superintendent of Post Offices, and Executive and Irrigation Engineers. It contains one of the three Central jails in the Province. Raipur was created a municipality in 1867. The municipal receipts during the decade ending 1901 averaged Rs. 1,22,000. In 1903–4 the income was Rs. 99,000, chiefly derived from octroi (Rs. 50,000) and water rate, while conservancy and water-supply constitute the principal items of expenditure, which amounted to Rs. 89,000. Half a battalion of native infantry was stationed here until 1902. The town is supplied with water from the Khārūn river by the Balrām Dās water-works, which were opened in 1892 and cost 3·38 lakhs, 2 lakhs being contributed by Rājā Balrām Dās of Rāj-Nāndgaon, after whom they are named. Water is drawn from an infiltration gallery in the river, and pumped into a service reservoir in the town 120 feet above the level of the gallery. The maintenance charges amount to Rs. 17,000, of which Rs. 13,000 is realized from a water rate. Raipur is the leading commercial town of Chhattīsgarh, having supplanted Rāj-Nāndgaon, which for many years occupied that position. The local handicrafts include brass-working, lacquering on wood, cloth-weaving, and the manufacture of gold and silver ornaments. In the Central jail cotton cloth is woven and mats are made from aloe fibre. A combined oil-mill and cotton-ginning factory has been opened, which pressed oil to the value of Rs. 90,000 in 1904. There are two printing

presses, using English, Hindī, Urdū, and Oriyā types. Among the local institutions are a museum constructed in 1875, a leper asylum supported by private contributions, and an enclosed market-place. The educational and medical institutions comprise a high school with an average attendance of 98 pupils, and a Rājkumār College for the sons of Feudatory chiefs and landholders, besides several other schools, four dispensaries, and a veterinary dispensary.

Raipur Village.—Village in the head-quarters subdivision of Noākhāli District, Eastern Bengal and Assam, situated in 23° 2′ N. and 90° 47′ E., on the left bank of the Dākātia river. Population (1901), 3,738. It is a busy trading mart.

Rairākhol.—Feudatory State in Bengal, lying between 20° 56′ and 21° 24′ N. and 83° 59′ and 84° 53′ E., with an area of 833 square miles. Up to 1905 political control was exercised by the Central Provinces Administration. It lies to the south-east of Sambalpur District, and is bounded by the Bāmra and Sonpur States on the north and south. The head-quarters are at Rāmpur, a village of 1,416 inhabitants, 44 miles from Sambalpur by road. The greater part of the State consists of hilly country covered with dense forests, but there are some open tracts on the north and south. Wild elephants, buffalo, and bison are found in the forests, and also, it is said, a special variety of light-coloured wild hog. The ruling family claim to be Kadambansi Rājputs, and to be a branch of the Bonai Rāj family.

The State was formerly subordinate to Bāmra, but was freed from its dependence and constituted one of the Garhjāt cluster by the Rājās of Patnā in the eighteenth century. The traditions of the ruling house relate that there used to be constant war between Bāmra and Rairākhol, and on one occasion the whole of the Rairākhol family was destroyed, with the exception of one boy who was hidden by a Butkā Sudh woman. She placed him in a cradle supported on four uprights, and when the Bāmra Rājā's soldiers came to seek for him, the Sudhs swore, 'If we have kept him either in heaven or earth, may our God destroy us.' The Bāmra people were satisfied with this reply and the child was saved, and on coming to manhood he won back his kingdom. In consequence of this incident, the Butkā Sudhs are considered by the Rairākhol house as relations on the mother's side; they have several villages allotted to them, and perform sacrifices for the ruling family. In some of these villages nobody may sleep on a cot or sit on a high chair, so as to be between heaven and earth, in the position in which the child was saved. The late Rājā Bishan Chandra Janāmuni died in 1900 after having occupied the *gaddi* for seventy-five years. His grandson Rājā Gauro Chandra Deo, then thirty years of age, was installed in the same year, subject to certain conditions, the obligation to accept a Government Dīwān during a probationary period

being one. The relations of the State with Government are in charge of a Political Agent who is subordinate to the Commissioner of Orissa. The population in 1901 was 26,888, having increased by 32 per cent. during the previous decade. The number of inhabited villages is 319, and the density of population 32 persons per square mile. Oriyā is the language of 90 per cent. of the population, and the Oraon and Mundārī dialects are spoken by a few hundred persons each. Chāsās are the most numerous caste in the State, and next to them Gonds, Gāndas, and Sudhs.

The soil is generally light and sandy. A regular survey has been carried out in only about half of the total number of villages, the assessments for the smaller villages being made summarily. As nearly as can be ascertained, about 64 square miles, or 8 per cent. of the total area, were cropped in 1904. Rice occupies 37 square miles, and the crops next to this in importance are *til*, *urad*, and *kulthī*. There are 376 tanks, from which 3,400 acres can be irrigated. About 470 square miles are covered with forest. *Sāl* (*Shorea robusta*) is the principal timber tree, and a considerable revenue is derived from the sale of *sāl* sleepers. The rearing of *tasar* silk-cocoons in the State forests is a local industry, as is also the extraction of catechu. There are extensive deposits of iron ore, which are worked by the Khonds, a few manufactured implements being delivered to the Rājā as a cess. The State contains 3 miles of gravelled and 35 of embanked roads. The principal routes are from Rāmpur to Sambalpur, Sonpur, Bāmra, and Cuttack. Exports of produce are taken to Sambalpur railway station.

The total revenue in 1904 was Rs. 55,000, of which Rs. 13,000 was derived from land, Rs. 13,000 from forests, and Rs. 7,000 from excise. Land revenue is still partly paid in kind in certain tracts, while in others, called *paikī parganas* and situated on the frontiers of the State, the cultivators formerly lay under an obligation of military service, which has now shrunk to that of escort duty to the Rājā. In twelve years since 1893, Rs. 93,000 has been expended on public works under the supervision of the Engineer of the Chhattīsgarh States division. Besides the roads already mentioned, a palace for the chief's family and State offices have been constructed at Rāmpur. The total expenditure in 1904 was Rs. 56,000. The tribute paid to the British Government is Rs. 800, and is liable to revision. The State supports five primary schools, with 250 pupils, the expenditure being about Rs. 1,000. At the Census of 1901 only 281 persons were shown as literate, all in Oriyā. A dispensary has been established at Rāmpur, at which 14,000 persons were treated in 1904.

Rai-Sānkli.—Petty State in KĀTHIĀWĀR, Bombay.

Raisen.—Head-quarters of the Nizāmat-i-Mashrik or eastern district of Bhopāl State, Central India, situated in 23° 20′ N. and 77° 47′ E.,

12½ miles by metalled road from Salāmatpur station on the Indian Midland section of the Great Indian Peninsula Railway. Population (1901), 3,495. Raisen always played an important part in the history of Eastern Mālwā, especially during the Muhammadan period. The fort stands on the northern end of a spur of the Vindhyas, the town lying at its foot. Nothing is known of the foundation of the fort, which is said to have been built by Hindus, but its name appears to be a corruption of Rājavāsinī or the 'royal residence.' The wall is built of massive sandstone blocks and is pierced by nine gates. Inside are numerous ruins and a few buildings in a state of fair preservation, including three Hindu palaces and a mosque. In the sixteenth century Raisen was the stronghold of Silharī, a Gahlot Rājput. After his death the fort was held by Pūran Mal, as guardian to Pratāp Singh, the infant grandson of Silharī. In 1543 Pūran Mal incurred the enmity of Sher Shāh, and the fort was attacked. After a prolonged and strenuous resistance Pūran Mal surrendered on a promise of honourable treatment, but was promptly murdered and his family sent into slavery. Raisen then became a part of Shujāat Khān's territory, and subsequently under Akbar was the chief town of a *sarkār* in the *Sūbah* of Mālwā. A British and State post office and a school are maintained in the town.

Raisingpur.—Estate in Khāndesh District, Bombay. *See* MEHWĀS ESTATES.

Raiwind (*Rāewind*).—Junction on the North-Western Railway, in the District and *tahsīl* of Lahore, Punjab, situated in 31° 15′ N. and 74° 16′ E., where the line from Delhi via Bhatinda joins that from Multān to Lahore. Population (1901), 1,764. Before the Ferozepore-Bhatinda Railway was opened, it was an important centre of the local trade in agricultural produce; and it possesses two cotton-ginning factories and a cotton-press, which give employment to 203 hands.

Rājāgriha.—Ruins in Patna District, Bengal. *See* RĀJGĪR.

Rājahmundry Subdivision.—Subdivision of Godāvari District, Madras, consisting of the RĀJAHMUNDRY and AMALĀPURAM *tāluks* and the NAGARAM ISLAND.

Rājahmundry Tāluk.—Inland *tāluk* in Godāvari District, Madras, lying between 16° 51′ and 17° 27′ N. and 81° 36′ and 82° 5′ E., along the left bank of the Godāvari river, with an area of 350 square miles. The population in 1901 was 161,070, compared with 145,789 in 1891. It contains two towns, RĀJAHMUNDRY (population, 36,408), the headquarters, and DOWLAISHWERAM (10,304); and 85 villages. The demand on account of land revenue and cesses in 1903–4 amounted to Rs. 3,20,000. Some tracts of very fertile black cotton soil occur, but much of the area is rocky and covered with scrub jungle. The principal crops are rice, pulses, tobacco, and oilseeds. At Korukonda

in the north is a large temple, which is resorted to by a great number of pilgrims throughout the year.

Rājahmundry Town (*Rājamahendravaram*).—Head-quarters of the subdivision and *tāluk* of the same name in Godāvari District, Madras, situated in 17° 1′ N. and 81° 46′ E., on the left bank of the Godāvari, 360 miles from Madras by the East Coast Railway, which here crosses the river by a girder-bridge of 56 spans, with a total length of 9,000 feet between abutments. The population in 1901 was 36,408, of whom 33,680 were Hindus, 2,073 Muhammadans, and 631 Christians.

The founding of Rājahmundry has been variously ascribed to either the Orissa or the Chālukyan kings, but it was almost certainly founded by the latter. Being the key to the passage of the Godāvari, it at once became a fortress of importance. It passed in turn to the Chola kings and the Ganpatis of Warangal; and Muhammadan influence must have been felt early, as the inscription over the gateway of the principal mosque records its erection in 1324. With the decline of the Warangal power, Rājahmundry came into the possession of the Gajapatis of Orissa. From them in 1470 it was wrested by Muhammad II of the Bahmani line. Not long afterwards, however, the Rājā of Orissa made a determined attempt to regain the lost provinces, and Muhammad's general was besieged in Rājahmundry. He was relieved by the Sultān in person, and the latter remained three years at Rājahmundry settling the country. The place was soon, however, reoccupied by the Gajapatis. In 1512 the great Krishna Deva of Vijayanagar captured the city, but restored it to Orissa. It was not till 1572, after two protracted sieges had failed, that it yielded to the Muhammadans under Rafat Khān. Rājahmundry was Bussy's head-quarters from 1754 to 1757, and it was hither that Conflans' army retreated after its defeat at Condore. The place was taken by the English without any difficulty; but after Forde's departure to attack Masulipatam, the French recaptured it, only to evacuate it almost immediately. Portions of the fort ramparts still remain, giving a picturesque appearance to the town.

Rājahmundry is the head-quarters of the District and Sessions Judge, the Superintendent of police, and the Civil Surgeon. One of the seven Central jails of the Presidency is located here. It was begun in 1864, and is constructed on the radiating principle, with accommodation for 1,052 criminal and thirteen civil prisoners. The articles manufactured in it include carpets, coarse woollen rugs, sandals, and woodwork. The town also contains a museum and public garden. Owing to its favourable position with regard to the main lines of communication in the District, it is an important distributing centre, and the principal dépôt for the timber floated down the river.

Rājahmundry was constituted a municipality in 1866. The muni-

cipal income and expenditure during the ten years ending 1902-3 averaged Rs. 44,000 and Rs. 43,000 respectively. In 1903-4 the income was Rs. 48,000, derived principally from the house and land taxes and tolls. The main items of expenditure, which amounted to Rs. 53,000, are conservancy and communications. A municipal hospital has accommodation for 32 in-patients.

The principal educational institution in the town is the first-grade college. Established as a Zila school in 1853, college classes were opened in 1873; in 1877 it was raised to its present grade, and in 1904 had 216 students in the upper classes. The town also contains a teachers' training college, with 103 students; a practising school attached to the training college, with 429 pupils; and a high school managed by the American Evangelical Lutheran Mission, with 295 pupils.

Rājākhera.—Head-quarters of the district of the same name in the State of Dholpur, Rājputāna, situated in 26° 54′ N. and 78° 11′ E., 24 miles north-east of Dholpur town and about the same distance south-east of Agra. Population (1901), 6,609. The town is said to have been built by Rājā Mān Singh, Tonwar, during his occupation of the country towards the end of the fifteenth century, and to be called after him 'the village of the Rājā.' The mud fort was built by the Jāt Rājā Sūraj Mal of Bharatpur, and is still in fair preservation. The town contains a post office, a vernacular school attended by 50 boys, and a dispensary.

Rājampet.—Town in Cuddapah District, Madras. *See* RĀZAMPETA.

Rājanpur Tahsīl.—Subdivision and southernmost *tahsīl* of Dera Ghāzi Khān District, Punjab, lying between 28° 25′ and 29° 25′ N. and 69° 19′ and 70° 38′ E., with an area of 2,019 square miles. It is bounded by the Indus on the east and south-east, and by independent territory on the west. The elevation of the Sulaimān Hills in this *tahsīl* diminishes from north to south, forming a low range with only one prominent peak, Giandari (4,160 feet). South of this the range turns westward, and the *tahsīl* is intersected by hill-torrent beds, while the lowland along the river is subject to inundation. The population in 1901 was 93,676, compared with 90,225 in 1891. It contains the towns of RĀJANPUR (population, 3,917), the head-quarters, and MITHANKOT (3,487); and 179 villages. The land revenue and cesses in 1903-4 amounted to 1·1 lakhs.

Rājanpur Town.—Head-quarters of the Rājanpur subdivision and *tahsīl* of Dera Ghāzi Khān District, Punjab, situated in 29° 6′ N. and 70° 19′ E., about 9 miles from the west bank of the Indus, on the road from Bannu to Jacobābād. Population (1901), 3,917. It was founded in 1732-3 by Makhdūm Shaikh Rājan, who ousted the original Nāhar possessors, and made himself master of their estates. Rājanpur was

an unimportant village until 1862, when the town of Mithankot was washed away by the Indus, and the head-quarters of the Assistant Commissioner were transferred thence. It does a considerable trade in grain and cotton with Sukkur, and in opium and indigo with Amritsar and Multān. The municipality was created in 1873. The income during the ten years ending 1902-3 averaged Rs. 5,400, and the expenditure Rs. 5,700. In 1903-4 the income was Rs. 6,100, chiefly from octroi; and the expenditure was Rs. 5,000. Rājanpur has an Anglo-vernacular middle school, maintained by the District board, and a dispensary.

Rajaonā.—Village in the head-quarters subdivision of Monghyr District, Bengal, situated in 25° 12′ N. and 86° 5′ E., 2 miles north-west of Luckeesarai railway station. Population (1901), 388. According to Cunningham, Rajaonā is the site of the Lo-in-ni-lo monastery visited by Hiuen Tsiang. Some fine Buddhist sculptures found here have been removed to the Indian Museum at Calcutta.

[*Archaeological Survey of India*, vol. i, pp. 151-6, and vol. xv, pp. 13-5.]

Rājapālaiyam.—Town in the Srīvilliputtūr *tāluk* of Tinnevelly District, Madras, situated in 9° 27′ N. and 77° 33′ E., 8 miles from Srīvilliputtūr town. It is a Union, with a population (1901) of 25,360, of whom 24,095 are Hindus, 1,014 Musalmāns, and 251 Christians. It is mostly inhabited by Rāzus, a class of people who originally came from Vijayanagar and claim to be Rājputs. Their language is Telugu, and they have many peculiar customs. There is also a colony of blacksmiths who turn out good work, such as iron safes, vessels, &c. Most of the Rāzus live by agriculture, and they also rear cattle which are considered superior to the ordinary breeds.

Rājāpur Tāluka.—Central *tāluka* of Ratnāgiri District, Bombay, lying between 16° 30′ and 16° 55′ N. and 73° 18′ and 73° 52′ E., with an area of 616 square miles. It contains one town, RĀJĀPUR (population, 5,178), the head-quarters; and 181 villages. The population in 1901 was 153,808, compared with 140,941 in 1891. The density, 250 persons per square mile, is much below the District average. The demand for land revenue in 1903-4 was Rs. 96,000, and for cesses Rs. 7,000. The coast line stretches from the Vijayadurg creek to the Machkandi river, a distance of 20 miles. The soil is poor, except in the valleys. The principal passes across the Western Ghāts are the Anaskura and Kājirda. The Vijayadurg creek has no bar, and is navigable throughout its course in the *tāluka*. The annual rainfall averages about 131 inches.

Rājāpur Town (1).—Head-quarters of the *tāluka* of the same name in Ratnāgiri District, Bombay, situated in 16° 34′ N. and 73° 31′ E., at the head of a tidal creek, 30 miles south-by-east of Ratnāgiri town

and about 15 miles from the sea. Population (1901), 5,178. Rājāpur is the oldest-looking and best preserved town in the Konkan; its streets are steep and narrow, and the market paved and roofed. The old English factory, a massive stone building with an enclosure leading to the creek, now used as a Government office, gives the town a special interest. It is also peculiar as the only Ratnāgiri port to which Arab boats still trade direct, though vessels of any size cannot approach within 3 miles of the old stone quay. Since the opening of the Southern Mahratta Railway the trade of Rājāpur has greatly declined. In 1903-4 the exports amounted to 1·3 lakhs and the imports to 1·6 lakhs. On the south point of the bay stands a lighthouse, erected in 1873, the light of which is visible for 9 miles. Jaitāpur, situated 11 miles lower down, is the outlet for sea traffic and the place of call for coasting steamers. The municipality, established in 1876, had an average income during the decade ending 1901 of Rs. 7,500. In 1903-4 the income was Rs. 6,600. The water-supply of the town is from a lake, upwards of half a mile long, with an average breadth of 250 feet, containing about 60,000,000 gallons of water, which has been formed by damming the Kodāvli river at a point 3 miles above the town. The present supply is about 39,000 gallons a day, which is insufficient for the needs of the town, and most of the pipes are in serious need of repair. The town contains two Subordinate Judges' courts, two dispensaries, of which one is private, and eight schools, including one for girls.

At the time of the first Muhammadan conquest (1312), Rājāpur was the chief town of a district. In 1660-1, and again in 1670, Sivajī plundered the town, sacking the English factory. In 1713 Rājāpur was handed over to Angriā. In 1756 it was taken by the Peshwā from Angriā; and in 1818 it came into British possession, together with the rest of the Peshwā's dominions.

A hot spring, about a mile from the town, is much frequented on account of its virtue in curing rheumatic and skin diseases. About a mile from this spring is another which flows at uncertain intervals. The flow lasts for periods varying from one or two days to three months. It is held in great reverence and called a Gangā. Immediately the flow begins, Hindus come from long distances to bathe in it. In the middle of the town is a temple of Vithoba, where fairs are held in honour of the god twice a year.

Rājāpur Town (or Majhgawān) (2).—Town in the Mau *tahsīl* of Bāndā District, United Provinces, situated in 25° 23′ N. and 81° 9′ E., on the bank of the Jumna, 18 miles north-east of Karwī. Population (1901), 5,491. Rājāpur is the name of the town, and Majhgawān that of the *mauza* or village area within which it is situated. According to tradition the town was founded by Tulsī Dās, the celebrated author

of the vernacular version of the Rāmāyana, and his residence is still shown. He is said to have established several peculiar restrictions, which are scrupulously observed; no houses (except shrines) are built of stone, and potters, barbers, and dancing-girls are rigorously excluded. The only public buildings are the police station, post office, school, and dispensary. Rājāpur was for a time the chief commercial centre of the District, owing to its position on the Jumna; but many of its merchants have migrated to Karwī, and the place is declining. Besides the export of country produce, there is a small manufacture of shoes and blankets. The school has 90 pupils.

Rajaulī.—Village in the Nawāda subdivision of Gayā District, Bengal, situated in 24° 39′ N. and 85° 30′ E., on the left bank of the Dhanarjī river. Population (1901), 1,509. Rajaulī is a large mart, and is connected with the towns of Nawāda and Bihār by a metalled road.

Rājbāri.—Head-quarters of the Goalundo subdivision of Farīdpur District, Eastern Bengal and Assam, situated in 23° 46′ N. and 89° 39′ E. It consists of a group of villages with a population (1901) of 4,573. Rājbāri is a station on the Eastern Bengal State Railway, and contains the usual public offices, the sub-jail having accommodation for 22 prisoners.

Rājgarh State (1).—A mediatized State in Central India, under the Bhopāl Agency, lying between 23° 27′ and 24° 11′ N. and 76° 36′ and 77° 14′ E., with an area of 940 square miles. It is situated in the section of Mālwā called Umatwāra, after the Umat clan of Rājputs to which the chiefs of Rājgarh and Narsinghgarh belong, bounded on the north by Gwalior and Kotah States, on the south by Gwalior and Dewās, on the east by Bhopāl, and on the west by Khilchipur. The northern portion is much cut up by hills, but the southern and eastern districts lie on the Mālwā plateau. The chief rivers are the Pārbati, which flows along the eastern border, and its tributary the Newaj, which flows by the chief town. In the southern and eastern parts the country is covered with Deccan trap, but in the hills along the northern section the Vindhyan sandstones are exposed.

The Umat Rājputs claim descent from the Paramāra clan, who held Mālwā from the ninth to the thirteenth century. Accounts of their rise are conflicting, but they trace their origin to Rānā Umajī. Later on they entered Mālwā, their leader Sārangsen settling at first in Dhār, the ancient seat of the Paramāra clan. He subsequently acquired land in the *doāb* between the Sind and Pārbati rivers, and obtained the title of Rāwat. Rāwat Krishnājī, eleventh in descent from Sārangsen, died in 1583, and was followed by Dungar Singhjī. Dungar Singhjī's eldest son, Udājī, succeeded and established his capital at Ratanpur. His younger brother, Dudājī, held the post

of *dīwān* or minister to his brother, a position which was inherited by his descendants. The two branches were distinguished as the Udāwats and Dudāwats. Chhatar Singh, who followed Udājī, died in 1661, his son Mohan Singh succeeding as a minor, and the State being administered by Dīwān Ajab Singh of the Dudāwat branch. He died in 1668, and was succeeded as minister by his son Paras Rām. The new minister was suspected of having designs on the State, which gave rise to endless disputes. In 1681 these differences became acute, and a division was effected, by which Paras Rām received the territory that now forms the Narsinghgarh State. In the disturbances caused by the Marāthā and Pindāri inroads of the eighteenth century, Rājgarh and Narsinghgarh became tributary to Sindhia and Holkar respectively. At the settlement of Mālwā by Sir John Malcolm in 1818, a treaty was mediated between Sindhia and the Rājgarh chief Newal Singh, by which Talen and several other villages were made over to Sindhia in payment of his claims for tribute against the Rāwat, while a written agreement was executed by the chief, giving to the British Government alone the right to intervene in the affairs of the State. Talen and the other villages were, however, returned by Sindhia in 1834. In 1880 transit duties on salt were abolished, for which a compensatory payment of Rs. 618-12 is made annually by the British Government, and four years later all similar dues except those on opium were done away with. Banne Singh, the present chief, succeeded in 1902. He bears the hereditary titles of His Highness and Rājā, and is entitled to a salute of 11 guns. He was created K.C.I.E. in 1908.

The population of the State was: (1881) 122,641, (1891) 119,489, and (1901) 88,376, giving a density of 94 persons per square mile. During the last decade there has been a decrease of 26 per cent., owing to the severe famine of 1899-1900. The State contains two towns, RĀJGARH (population, 5,399), the capital, and BIAORA (5,607); and 622 villages. Hindus number 78,343, or 89 per cent.; Musalmāns, 4,925, or 6 per cent.; Animists (chiefly Bhīls), 4,788, or 5 per cent. The Mālwī dialect of Rājasthānī is the most prevalent. The most numerous castes are Chamārs (10,000), Rājputs (7,800), Dāngīs (3,800), and Gūjars and Balais (each 3,000). Of the total population, 46 per cent. are supported by agriculture and 21 per cent. by general labour.

About 234 square miles, or 25 per cent. of the total area, are under cultivation, of which 17 square miles are irrigable. Of the uncultivated area 88 square miles are cultivable, 336 under forest, and the rest is waste. Wheat occupies 101 square miles, or 43 per cent. of the area under cultivation, *jowār* 47 square miles, maize 35, cotton 20, gram 16, and poppy 4.

The most important articles of trade are grain and opium. The principal road is that from Rājgarh to Sehore, 57 miles in length, by

which most of the traffic passes to the railway. Other roads connect Rājgarh with Khilchipur and Pachor with Shujālpur, giving a total of 114 miles of metalled roads in the State. Combined British post and telegraph offices are maintained at Rājgarh and Biaora, and a branch post office at Talen.

For administrative purposes the State is divided into seven *parganas*—Biaora, Karanwās, Talen, Kotada, Kālīpīth, Newalganj, and Sivagarh—each under a *tahsīldār*. The chief has full powers in all revenue, civil judicial, and general administrative matters. In criminal matters he exercises the powers of a Sessions Court, but all heinous crimes are tried by the Political Agent. The British codes are followed generally.

The normal income from all sources is 4·5 lakhs, of which 3·8 lakhs are derived from land revenue, Rs. 17,000 from customs dues (including Rs. 15,000 from opium), Rs. 30,000 from excise, and Rs. 39,000 from interest on Government securities. The lands alienated in *jāgīrs* yield approximately Rs. 47,000 annually. The total expenditure amounts to about 4 lakhs, the main heads being general administration (Rs. 70,000), chief's establishment (Rs. 36,000), police (Rs. 28,000), collection of land revenue (Rs. 15,000), tribute (Rs. 55,600), and public works (Rs. 54,000). The State pays a tribute of Rs. 54,000 to Sindhia for Talen, and Rs. 600 to the Rānā of Jhālawār for Kālīpīth. It also receives a *tānka* (cash payment) of Rs. 2,335 a year from Sindhia. The British rupee has been legal tender since 1896.

The land is leased out to cultivators on a fixed assessment, the revenue being collected through farmers (*mustājirs*), who are responsible for the amount assessed and receive a commission. No regular settlement has been made. The rates are fixed in accordance with the quality of the soil, higher rates being levied on irrigated land. The fertile lands in the south and east are assessed at Rs. 4-12-10 to Rs. 1-9-7 per acre, and the less productive area in the hilly tract at R. 0-12-10 to R. 0-6-5. These rates give an incidence of Rs. 3-9-5 per acre on the cultivated area, and of 14 annas per acre on the total area.

No regular army is maintained, but 200 footmen and 30 *sowārs* form the chief's guard. A regular police force of 357 men is being organized, and there is a Central jail at Rājgarh town.

In 1901, 1·5 per cent. of the population were able to read and write. Three State schools and eight private establishments contain 280 pupils. The total cost of education is Rs. 3,000. The two hospitals in the State cost Rs. 5,000 yearly.

Rājgarh Town (1).—Capital of the State of the same name in Central India, situated in 24° 1′ N. and 76° 44′ E., on the left bank of the Newaj river, a tributary of the Pārbati, 85 miles by road from Bhopāl, and 57 from the Shujālpur station on the Ujjain-Bhopāl branch

of the Great Indian Peninsula Railway. Population (1901), 5,399. The town was founded about 1640 by Rāwat Mohan Singh, who also erected the battlemented wall by which it is surrounded. Besides the chief's residence, a State guesthouse, a school, a dispensary, a *sarai*, and British combined post and telegraph offices are situated in the town.

Rājgarh State (2).—*Thakurāt* in the BHOPĀWAR AGENCY, Central India.

Rājgarh Town (2).—Head-quarters of a *tahsīl* of the same name in the State of Alwar, Rājputāna, situated in 27° 14′ N. and 76° 38′ E., 22 miles south of Alwar city, and about a mile south of Rājgarh station on the Rājputāna-Mālwā Railway. Population (1901), 11,008. It was built about 1767 by Pratāp Singh, the founder of the Alwar State, and contains several fine buildings, notably the palace in the fort, the frescoes in which are curious. The town wall and ditch were added by Mahārao Rājā Banni Singh. The town possesses a post office, an Anglo-vernacular school, and a hospital with accommodation for 8 in-patients. A municipal committee looks after the lighting and sanitation of the place, the average income, derived mainly from octroi, being about Rs. 7,600 a year, and the expenditure somewhat less. About half a mile to the east are the remains of the old town of Rājgarh, which is said to have been founded in the middle of the second century by Rājā Bāgh Singh of the Bargūjar clan of Rājputs, and the Bāghola tank close to it is attributed to the same chief. On the embankment of this tank General Cunningham found three life-size Jain figures, all standing upright and naked, and two jambs of a highly ornamented doorway of a temple, besides numerous broken figures, all apparently Jain. They were said to have been dug up when the new town was being built. Situated on a lofty range of hills some 18 miles to the west is Pāranagar, the old capital of the Bargūjar Rājās, chiefly remarkable for the holy temple of Nīlkanth Mahādeo, which is the most famous place of pilgrimage in this part of the country. This temple is said to have been built by a Bargūjar Rājā, Ajai Pāl; and an inscription under a figure of Ganesha bears the date of A.D. 953, which was most probably the date of the construction of the building, as its general style belongs to that period. In one of the ruined temples in the vicinity is a colossal Jain figure 13 ft. 9 in. high, with a canopy of $2\frac{1}{2}$ feet overhead which is supported by two elephants.

Rājgarh Town (3).—Head-quarters of a *tahsīl* of the same name in the Reni *nizāmat* of the State of Bīkaner, Rājputāna, situated in 28° 39′ N. and 75° 24′ E., about 135 miles east by north-east of Bīkaner city. Population (1901), 4,136. The town was built by Mahārājā Gaj Singh about 1766, and was named after his son Rāj Singh. It possesses an Anglo-vernacular school attended by 74 boys,

a post office, and a hospital with accommodation for 7 in-patients. The *tahsīl* contains 187 villages, and more than 36 per cent. of the inhabitants are Jāts. As most of them belong to the Pūniya clan, the tract used to be called locally the Pūniya *pargana*. The Kātli river sometimes flows in the south for a few miles.

Rājgīr.—Ruined town in the Bihār subdivision of Patna District, Bengal, situated in 25° 2′ N. and 85° 26′ E. Population (1901), 1,575. It was identified by Dr. Buchanan-Hamilton with Rājagriha, the residence of Buddha and capital of the ancient Magadha; and by General Cunningham with Kusa-nagara-pura ('the town of the *kus* grass'), visited by Hiuen Tsiang and called by him Kiu-she-lo-pu-lo. Rājagriha, meaning 'the royal residence,' was also known as Giribrājā, 'the hill surrounded'; and under this name the capital of Jarāsandha, king of Magadha, is mentioned in both the Rāmāyana and the Mahābhārata. It is also described by Fa Hian and Hiuen Tsiang, the Chinese pilgrims, the latter of whom gives an account of the hot springs found at this place. The five hills surrounding the town, mentioned in the Mahābhārata and in the Pāli annals, have been examined by General Cunningham. The first, Baibhār, is identified with the Webhars mountain of the Pāli annals, on the side of which was the famous Sattapanni Cave, where the first Buddhist synod was held in 543 B.C. The second hill, Ratnāgiri, is that called by Fa Hian 'The Fig-tree Cave,' where Buddha meditated after his meals, and is identical with the Rishigiri of the Mahābhārata, and the Pandao of the Pāli annals. A paved zigzag road leads to a small temple on the summit of this mountain, which is still used by Jains. The third hill, Bipula, is clearly the Wepullo of the Pāli chronicles and the Chait-yaka of the Mahābhārata. The other two hills have Jain temples.

Traces of the outer wall around the ancient town of Rājagriha may still be seen, about 4⅝ miles in circumference. The new Rājgīr is about two-thirds of a mile north of the old town. According to Buddhist records, it was built by Srenika or Bimbāsāra, the father of Ajātasatru, the contemporary of Buddha. Dr. Buchanan-Hamilton stated that the town stood upon the north-west corner of a fort, which is an irregular pentagon in form and apparently of great antiquity. At the south-west extremity are traces of a more modern fort, with stone walls, which might have been a kind of citadel. It occupies a space of about 600 yards. The eastern and northern faces had no ditch, but there is a strong stone wall about 18 feet thick, with circular projections at intervals. The eastern approach to Rājagriha was protected by a stone wall, 20 feet in width and running zigzag up the southern slopes of the hills. A watch-tower on the extreme eastern point of the range corresponded with a similar tower immediately over the town. One tower still exists, and also the foundations of the second tower. South

of the ancient town of Rājagriha are found inscriptions on huge slabs of stone, which form a natural pavement. So far as is known, the characters have never been deciphered.

[*Archaeological Survey of India*, vol. i, pp. 16–34, and vol. viii, pp. 85–100.]

Rājim.—Village in the District and *tahsīl* of Raipur, Central Provinces, situated in 20° 58′ N. and 81° 53′ E., 27 miles from Raipur town, on a branch of the Raipur-Dhamtarī narrow-gauge railway. The town stands on the right bank of the river Mahānadī at its junction with the Pairī. Population (1901), 4,985. This figure, however, was in excess of the normal number of residents, as it included visitors to the fair. Rājim contains a fine group of temples dedicated to Vishnu, the principal of which is that of Rājivlochan ('the lotus-eyed'), which is visited by all pilgrims on their way to Jagannāth. It is a handsome building, 59 by 25½ feet, standing on a platform 8 feet high. Another temple of Kuleshwar is situated on a small island in the Mahānadī. A large annual fair takes place at Rājim, lasting for about six weeks in February and March. It is principally a cattle-fair, but much *tasar* silk from Bilāspur is also sold. Rājim is the centre of a considerable amount of general trade, principally in lac and myrabolams. It has a primary school.

Rājkot State.—State in the Kāthiāwār Political Agency, Bombay, lying between 22° 3′ and 22° 27′ N. and 70° 46′ and 71° 9′ E., with an area of 282 square miles. It is an undulating country, with a stony soil watered by several streams, of which the Aji is perennial. The climate, though hot in the months of April, May, and October, is generally healthy. The annual rainfall averages from 20 to 25 inches.

Rājkot is an offshoot of Navānagar. The founder of the house was Kunwar Vibhojī, younger son of Ajojī, a great-grandson of Jām Rāval. In 1807 the ruler executed the usual engagements. The family follows the rule of primogeniture in matters of succession, and holds a *sanad* authorizing adoption. The chief is entitled to a salute of 9 guns, and is addressed as Thākur Sāhib.

The population at the last four enumerations was: (1872) 36,770, (1881) 46,540, (1891) 49,958, and (1901) 49,795. Hindus number 40,153, Musalmāns 6,251, and Jains 3,352. The only town is RĀJKOT, the capital, and there are 60 villages.

The total area under cultivation is 175 square miles, of which 14 square miles are irrigated. There is no uniform and fixed revenue system in the State, for 28 villages fall under the *bhāgbatai* or share of produce system and 3 under the *vighoti* or cash assessment system. The chief irrigational work is the Lalpuri tank, which supplies 3 square miles. Horse-breeding is carried on in a State paddock, containing 2 stallions and 30 mares and costing about Rs. 5,000. Cattle-

breeding also receives some attention. The common kinds of grain, sugar-cane, and cotton are the principal crops. They are exported from Gogha and Jodiya, and to a certain extent by rail from Wadhwān. The Jetalsar-Rājkot, Morvi, and Jāmnagar Railways pass through the State. Carts are the chief means of transport, but pack-bullocks and horses are also employed. Cotton and woollen cloth are the principal manufactures, and there is one ginning factory. Exports, consisting chiefly of cotton yarn, molasses, and hides, were valued at 3 lakhs in 1903–4; and imports, chiefly timber, cotton, silk, and ivory, at 10 lakhs.

The State ranks as a second-class State in Kāthiāwār. The chief has power to try his own subjects for capital offences. The estimated gross revenue is 3 lakhs, chiefly derived from land (2 lakhs). A tribute of Rs. 21,321 is paid jointly to the British Government and the Nawāb of Junāgarh. The State contains 3 municipalities, and 19 schools with a total of 1,875 pupils, of whom 359 are girls. It maintains an armed police force of 153 men, of whom 15 are mounted (1905). There are two dispensaries affording relief annually to 27,815 patients, and a travelling hospital assistant is engaged to carry medical relief to outlying villages. In 1903–4 the number of persons vaccinated was 1,122.

Rājkot Town.—Capital of the State of the same name in Kāthiāwār, Bombay, situated in 22° 18′ N. and 70° 50′ E., at the junction of the Bhavnagar-Gondal-Junāgarh-Porbandar, the Jāmnagar, and the Morvi Railways. Population (1901), 36,151, including the civil and military stations. Hindus number 25,927, Musalmāns 6,637, and Jains 3,071. Rājkot is the residence of the Agent to the Governor in Kāthiāwār, and contains several central institutions. Among these is the Rājkumār College, which owed its inception to the foresight of Colonel Keatinge, V.C., Political Agent from 1863 to 1867, and was opened by Sir Seymour FitzGerald, Governor of Bombay, in 1870, and for many years presided over by the late Mr. Chester MacNaghten. This institution provides a suitable education and training not only for the sons of chiefs of Kāthiāwār but also for cadets of other States in the Bombay Presidency. The college itself is a fine building in the Venetian Gothic style, amply equipped with a gymnasium, a racquet court, a rifle range, and a cricket pavilion. The Jubilee Memorial Institute, an imposing building consisting of the Connaught Hall, the Lang Library, and the Watson Museum, is situated in a picturesque public garden. The Rasūlkhānjī Hospital for Women and Children, built at the expense of the Nawāb of Junāgarh, and maintained jointly by the chiefs of Kāthiāwār, is a well-equipped institution in charge of a European lady doctor. The West Hospital, built conjointly by Government and the chiefs of Kāthiāwār, is a fully equipped hospital in charge of the Agency Surgeon, who has at his disposal the services

of a qualified Assistant Surgeon and a trained English nurse. The Male Training College and the Barton Female Training College are also maintained by the chiefs of Kāthiāwār. In the military limits are a church and a clock-tower, the latter built by the late Jām of Jāmnagar. In the civil station are the lines of the Kāthiāwār Agency police, and the Rājkot Central prison. In the neighbourhood are the Rājkot State stud farm and dairy, and two large artificial tanks which supply Rājkot with water and also irrigate a few square miles of country. There is one cotton-ginning factory in Rājkot, but the principal trade is in grain and a local building stone. The river Aji, which washes the walls of the town, is spanned by two bridges and an aqueduct. The bridge used for foot traffic was built by the late Mahārājā of Bhaunagar. The high school was attended in 1903–4 by 293 pupils. The Irish Presbyterian Mission has a central station here. The income of the cantonment funds in 1903–4 was Rs. 1,714.

Rājmāchi (or 'the royal terrace').—An isolated double-peaked fortified hill on the main line of the Western Ghāts, in the Māval *tāluka* of Poona District, Bombay, situated in 18° 50′ N. and 73° 24′ E., about 6 miles north of the Bor Pass. It can be visited from Khandāla or Lonauli. From the Konkan, thickly wooded at the base, its sides rise about 2,000 feet in steep rock slopes which, as they near the crest of the hill, grow gradually treeless and bare. Above the crest from the flat hill-top towers a rocky neck about 200 feet high with at either end a short fortified tower-like head, the inner, Srīvardhan ('luck's increase'), high and pointed, the outer, Manranjan ('heart gladdener'), lower and flat-topped. A tongue of land about 300 yards broad joins Rājmāchi to the rough plateau that runs along the crest of the Ghāts north from Khandāla. Across this tongue of land, half a mile from the foot of the central hill-top, is a strong stone wall 17 feet high and 8 thick, with a parapet loopholed for musketry, and with bastions at intervals pierced for cannon. A wide stretch of tilled land within this line of wall ensured the garrison a full supply of grain, grass, and fuel. From this upland, at a safe distance from the neighbouring heights, the central hill-top rises 300 to 400 feet high, a sheer, black, overhanging cliff crowned by a battlemented peak, and towards the west strengthened by a double line of encircling walls. On the crest of the neck that joins the two peaks, fronting a small temple of Bhairav, stand three old stone lamp-pillars or *dipmāls*, and two small, quaintly carved stone chargers ready saddled and bridled for the god. The temple, which is little more than a hut, has three pairs of small, black stone images of Bhairav and his wife Jogeshvari, presented, according to tradition, by Sivajī, Sāhū, and Bājī Rao Peshwā. Srīvardhan, the eastern and higher fort, less sheer to the south than to the north, is in places strengthened by a triple line of wall. On the south side, through

the ruined gateway, is reached a chamber cut in the rock, once used as a granary or storehouse, and close by is a large rock-cut reservoir. On the north, in a narrow ledge of the steep cliff, hollowed into the hill and always sheltered from the sun, is a cistern with an unfailing supply of pure water. The inner fortification, with a few ruined dwellings, encloses the central peak, the *gadhi* or 'stronghold.' Manranjan, the outer hill, less completely protected by nature, is very carefully fortified with two high strong lines of wall. The outer line, running along the crest of the cliff, encloses some cisterns and reservoirs of cut stone; the inner, encircling the flat hill-top, has within it the powder magazine, a long, low, tomb-like, roofless building of very closely fitting cut stone, and close to it the ruins of the commandant's house and a cistern. The western wall commands the delightful prospect that gives the fort its name. Below lies the royal terrace, wooded and stream-furrowed to the north, bare and well-tilled to the west, and to the south laid out in fields with a small lake and a shady hamlet of Kolī huts. North and south, beyond the plateau, stretches the main line of the Western Ghāts, their sides rising from deep evergreen forests in bare black cliffs, to the rough, thinly wooded, part-tilled terrace that extends eastwards into the Deccan plain and along the crest, broken by wild, rocky peaks and headlands, from Harischandragarh 50 miles to the north to Bhojya 18 miles to the south. Westwards stretch outlying spurs and ranges with deep, water-worn valleys and steep, well-wooded sides. Far off to the right rise Māhuli, Gotaura, Tungār, and the Salsette hills; in front, beyond the long flat backs of Mātherān and Prabal, lie the harbour, island, and city of Bombay; and to the left sweeps the long range of hills that passes by Nāgothna and Sāgargarh from the Western Ghāts to the extreme west of Alībāg.

The first notice of Rājmāchi is in 1648, when it was taken by Sivajī. In 1713 the fort surrendered to Angria, and was ceded by him in 1730 to the second Peshwā Bājī Rao (1721–40). In 1776 the impostor Sadoba, a Kanaujia Brāhman who called himself Sadāshiv Rao Bhau, took the greater part of the Konkan and came to the Bor Pass. Here he was opposed for a time, but eventually carried the Pass, and received offers of submission from Rājmāchi. The Poona ministers then occupied his attention with pretended overtures of submission, until two of the Peshwā's officers suddenly fell on him in the neighbourhood of Rājmāchi, and drove him and his force to the Konkan. In the last Marāthā War of 1818 the fort surrendered without resistance.

Rājmahāl Subdivision.—North-eastern subdivision of the Santāl Parganas District, Bengal, lying between 24° 43′ and 25° 18′ N. and 87° 27′ and 87° 57′ E., with an area of 741 square miles. The subdivision contains a narrow strip of alluvial soil along the banks of the

Ganges, which forms its eastern boundary, but the greater part is hilly country stretching southwards from Sāhibganj. The population in 1901 was 276,703, compared with 276,395 in 1891, the density being 373 persons per square mile. It contains one town, SĀHIBGANJ (population, 7,558), an important centre of trade; and 1,292 villages, of which RĀJMAHĀL is the head-quarters. A large part of the Dāman-i-koh Government estate lies within the subdivision.

Rājmahāl Hills.—Hilly tract in the Santāl Parganas District of Bengal, lying between 24° 30′ and 25° 15′ N. and 87° 21′ and 87° 49′ E., and estimated to cover an area of 1,366 square miles. The height nowhere exceeds 2,000 feet above sea-level, and the average elevation is considerably less. Among the highest ridges are Morī and Sundgārsā. The narrow valleys in these hills belong to the Government estate known as the Dāman-i-koh, which extends 24 miles north and south, with an average width of 5 miles, and is surrounded by hills on every side. The Rājmahāl Hills were long regarded as a continuation of the Vindhyan range of Central India; but Mr. V. Ball, of the Geological Survey, after a detailed examination of these hills, came to the conclusion that they form an isolated group, the north-eastern extremity of which constitutes the turning-point of the Ganges. The Rājmahāl Hills consist of overflowing basaltic trap of comparatively recent date, resting upon coal measures and metamorphic rocks of gneissose character, forming part of the Lower Gondwāna system. The hills leave only a narrow passage between their northern flank and the Ganges channel; and in Mughal times this pass, known as TELIĀGARHI, was of great strategic importance, and was defended by a large stone fort, the ruins of which are still to be seen. The loop-line of the East Indian Railway follows this route. The hills are inhabited by the Pahāria races, who are described in the article on the SANTĀL PARGANAS. A peculiar feature of these hills is the chain of level plateaux which are found upon the crests of the ridges. Upon these small plateaux the Pahārias have built their houses; and they are cultivated with the ordinary plains crops, millets, *sarguja* (*Guizotia oleifera*), pulses and even rice covering the hill-tops, while mangoes, jack-fruit trees, and palm trees thrive luxuriantly. The approach from the plains below to each plateau is jealously guarded by a steep ladder of boulders. The slopes of the hills yield large quantities of bamboos and firewood, and spiked millet is grown in patches everywhere. A large trade has recently sprung up in *sabai* grass (*Ischaemum angustifolium*), which is grown in the hills near Sāhibganj, where it is baled and dispatched by rail to the paper-mills in the neighbourhood of Calcutta.

Rājmahāl Village.—Head-quarters of the subdivision of the same name in the Santāl Parganas District, Bengal, situated in 25° 3′ N.

and 87° 50′ E., on the right bank of the Ganges. Rājmahāl is now a mere collection of mud huts, interspersed with a few respectable houses. The ruins of the old Muhammadan city, buried in rank jungle, extend for about 4 miles to the west of the modern village. After his return from the conquest of Orissa in 1592, Mān Singh, Akbar's Rājput general, selected Rājmahāl (formerly Agmahāl) as the capital of Bengal on account of its central position with respect to that Province and to Bihār, and because it commanded the Ganges and the pass of Teliāgarhi. The chief antiquities of Rājmahāl are the Jāma Masjid of Mān Singh, the palaces of Sultān Shujā and Mīr Kāsim Alī, Nawāb of Bengal, the Phulbāri or flower garden, and numerous mosques and monuments. In the beginning of the nineteenth century Dr. Buchanan-Hamilton estimated that the town contained from 25,000 to 30,000 persons. In the Census of 1901 the population was returned at 2,047. In 1860, when the loop-line of the East Indian Railway was opened to Rājmahāl, an arm of the Ganges ran immediately under the station, forming a navigable channel for steamers and boats of all sizes. In 1863–4 the river abandoned this channel, leaving an alluvial bank in its place. Rājmahāl was till 1879 3 miles distant from the main stream of the Ganges, and could be approached by large boats only during the rains. In that year the Ganges returned to its old bed, but in 1882 it showed indications of again deserting it. In consequence of these changes the bulk of trade has been transferred to Sāhibganj, though Rājmahāl still retains the local traffic across the Ganges with Mālda District.

Rājnagar Town.—Head-quarters of a *pargana* of the same name in the State of Udaipur, Rājputāna, situated in 25° 4′ N. and 73° 52′ E., about 36 miles north by north-east of Udaipur city, and about a mile to the west of the lake called Rāj Samand. Population (1901), 2,311. The town was founded by, and named after, Rānā Rāj Singh in the latter half of the seventeenth century. It contains a primary school attended by about 30 boys, and the marble quarries in the neighbourhood are famous.

Rājnagar Village (or Nagar).—Village in the head-quarters subdivision of Bīrbhūm District, Bengal, situated in 23° 57′ N. and 87° 19′ E. Population (1901), 3,845. Rājnagar was the capital of the Hindu princes of Bīrbhūm prior to the conquest of Bengal by the Muhammadans in 1203. In 1244 it was plundered by the Oriyās. The site is now covered with crumbling houses, mouldering mosques, and weed-choked tanks; the ancestral palace of its Rājās has fallen into ruins. North of the town and buried in dense jungle are the remains of an ancient mud fort, said to have been built in the eighteenth century as a defence against the Marāthās. The famous Nagar wall or entrenchment, extending in an irregular and broken line

around the town for a distance of 32 miles, is now rapidly decaying. The *ghāts* or gateways have long ceased to be capable of defence, and many parts of the wall have been washed almost level with the ground by the annual rains. The place is locally famous for its mangoes.

[*Archaeological Survey Reports*, vol. viii, pp. 146–7.]

Rāj-Nāndgaon State.—Native State in the Central Provinces. *See* NĀNDGAON.

Rāj-Nāndgaon Town.—Capital of the Nāndgaon Feudatory State, Central Provinces, situated in 21° 5′ N. and 81° 3′ E., with a station on the Bengal-Nāgpur Railway, 666 miles from Bombay. Population (1901), 11,094. The large group of buildings forming the Rājā's palace covers more than five acres of land, surrounded by a garden with a maze. Another large and handsome garden contains a guest-house for European visitors and a menagerie. The affairs of the town are managed by a municipal committee, whose receipts average about Rs. 33,000. The water-supply is obtained from the Seonāth river, 2½ miles distant. Filtration wells have been sunk in the river, and water is pumped into a service reservoir in the town. The works were opened in 1894 and cost 1·25 lakhs. Rāj-Nāndgaon is the centre of trade for the surrounding area. The principal exports are grain and oilseeds. The Bengal-Nāgpur Spinning and Weaving Mills were opened in 1894, with a capital of 6 lakhs, a large portion of which was contributed by the chief. They contain 208 looms and 15,176 spindles, employ 1,112 operatives, and produced 34,975 cwt. of yarn and 7,468 cwt. of cloth in 1904. A cotton-ginning factory is under construction. A station of the American Pentecostal Mission has been established in the town. Rāj-Nāndgaon possesses an English middle school with 88 pupils, a girls' school, three other schools, and a dispensary.

Rājpar.—Petty State in REWĀ KĀNTHA, Bombay.

Rājpara (1).—Petty State in the Gohelwār Prānt, Kāthiāwār, Bombay. *See* KĀTHIĀWĀR.

Rājpara (2).—Petty State in the Hālār Prānt, Kāthiāwār, Bombay. *See* KĀTHIĀWĀR.

Rājpīpla.—State in the Political Agency of Rewā Kāntha, Bombay, lying between 21° 23′ and 21° 59′ N. and 73° 5′ and 74° E., with an area of 1,517½ square miles. It is bounded on the north by the Narbadā river and the Mehwāsi estates of Rewā Kāntha; on the east by the Mehwāsi estates of the District of Khāndesh; on the south by the State of Baroda and Surat District; and on the west by Broach District. Its extreme length from north to south is 42 miles, and its extreme breadth from east to west 60 miles.

Two-thirds of the State are occupied by a continuation of the Sātpurā range, known as the Rājpīpla hills, nowhere exceeding 3,000 feet in height above the sea, which form the watershed between the

Narbadā and Tāpti rivers. Towards the west the hills gradually subside into gentle undulations. The principal rivers of Rājpīpla are the Narbadā, skirting the territory north and west for nearly a hundred miles; and the Karjan, which rises in the hills of the Nānchal *pargana*, and, flowing north into the Narbadā, divides the State into two equal portions. The signs of disturbance in the lines of trap and the great number of dikes seem to show that Rājpīpla was, during the time when trap rocks were poured out, a great centre of volcanic action. Except in the rich western lands, the whole of the State is covered with trees, the chief being teak, black-wood, and *khair*. The climate is exceedingly unhealthy, malarial fever being prevalent from September to February. The rainfall in 1903-4 was 46 inches.

The family of the Rājpīpla chief is said to derive its origin from one Chokārāna, son of Saidāwat, Rājā of Ujjain, a Rājput of the Paramāra tribe, who, having quarrelled with his father, left his own country and established himself in the village of Pīpla, in the most inaccessible part of the hills to the west of the modern town of Nāndod. The only daughter of Chokārāna married Moker or Mokherāj, a Rājput of the Gohel tribe, who resided in the island of Premgar or Pīram in the Gulf of Cambay. Mokherāj had by her two sons, Dungarjī and Gemarsinghjī. The former founded Bhaunagar and the latter succeeded Chokārāna. Since that time (about 1470) the Gohel dynasty has ruled in Rājpīpla. The Musalmān kings of Ahmadābād had before this taken an agreement from the Rājā to furnish 1,000 foot-soldiers and 300 horsemen; and the agreement remained in force until Akbar took Gujarāt in 1573, when he imposed a tribute of Rs. 35,550 on the country in lieu of the contingent. This was paid until the end of the reign of Aurangzeb (1707), when, the imperial authority declining, the payments became irregular, and, if opportunity favoured, were altogether evaded. Subsequent to the overthrow of the Muhammadan authority, Dāmājī Gaikwār, in the latter part of the eighteenth century, succeeded in securing a half-share of four of the most fertile subdivisions of the territory. These were afterwards released at the cost of an annual payment of Rs. 40,000 to the Gaikwār, and this sum later on was raised to Rs. 92,000. Such rapid and frequent encroachments on the State and internal quarrels led to the intervention of the British Government. About the close of 1821, of two disputants, the rightful claimant Verisaljī was placed on the throne by the British. Under the settlement made in 1823 the State pays an annual tribute of Rs. 50,001 to the Gaikwār, on the understanding that a remission shall be granted in seasons of natural calamity. The State, owing to mismanagement, was placed in the year 1884 under the joint administration of an officer of the British Government and the Rājā. From 1887 to 1897 the administration was entrusted solely to a British officer. The chief,

who bears the title of Mahārānā, is entitled to a salute of 11 guns and holds a *sanad* authorizing adoption. The succession follows the rule of primogeniture.

The population at the last four enumerations was: (1872) 120,036, (1881) 114,756, (1891) 171,771, and (1901) 117,175, the decrease during the last decade being due to the great famine of 1899–1900. The population is distributed between one town, NĀNDOD, the capital of the State, and 651 villages, the density being 77 persons per square mile. Hindus number 94,865, Musalmāns 5,636, and Animists 16,075. The latter are chiefly Bhīls.

Of the total area 33 per cent. is cultivable, and 243 square miles were actually cultivated in 1903–4. Cotton is the most important crop, occupying 53 square miles; while *jowār* occupied 43, *bājra* 29, rice 25, and *kodra* 20 square miles. In the rich alluvial soil in the north and north-west and in the favoured patches in the west, *tur*, castor-oil, millet, cotton, gram, and rice are grown. Experiments for introducing Egyptian cotton are in progress. Among the hills and forests, where Bhīls are the only husbandmen, the chief crops are *tur*, coarse rice, *kodra*, *banti*, and *bavta*. The four last are the Bhīls' chief diet, though, unless three or four times washed, the *kodra* is slightly poisonous, causing giddiness and faintness. Almost all hill crops are grown in scattered forest clearings. The tract covered by forests is about two-thirds of the whole area, including 409 square miles of 'reserved' forest. In the south there are valuable teak forests. Carnelian mines are worked at the foot of a hill near Ratanpur, a village about 14 miles from the city of Broach, where the Marāthās gained a victory over the Mughals in 1705. Iron of good quality used to be manufactured in the same locality, and *akik* stones are exported to Cambay for the manufacture of agate work. A soft stone found in a village in the Vādia *tāluka* is fashioned into grindstones and mortars for export. The State contains two cotton-ginning factories. The Bhīls and other forest tribes make bamboo matting and baskets for sale; otherwise there are no industries of any description. The chief article of trade is teak from the forests. *Mahuā* and sesamum are largely exported, and nearly all the cotton grown in the State is sent to Bombay. A railway, constructed at a cost of 13 lakhs, and opened in 1899, connects Nāndod with Anklesvar. Its total length in 1903–4 was 235 miles, and it yielded a net profit of Rs. 11,641. In 1899–1902 the State suffered severely from famine, due to short rainfall and the ravages of rats. Nearly 9 lakhs was spent on famine relief on this occasion.

For administrative purposes the lands of the State are distributed in *parganas*, each under a *thānadār*, with considerable revenue, police, and magisterial powers. The chief has power to try, for capital

offences, without the permission of the Political Agent, any person except British subjects. The income of the State in 1903–4 was 8·7 lakhs, including receipts from land, forests, and excise. More than Rs. 70,000 is annually spent on public works. The forms of assessment levied are the hoe (*kodāli*), or the billhook (*dātardi*) cess (varying from 8 annas to 2 rupees); a plough tax (*hālbandi*), levied on each plough (varying according to the status of the cultivator from Rs. 5 to Rs. 19); and *bighotis*, or acre rates (ranging from $4\frac{1}{4}$ annas to Rs. 25). Of the total area, 437 square miles have been surveyed. There is a municipality at Nāndod under State management. The chief maintains a military force of 111 men, horse and foot, and 239 police. The State contained in 1903–4 one high school and 81 primary schools, of which 5 were for girls. The boys' schools were attended by 3,417 pupils and the girls' schools by 607. One hospital and five dispensaries and the Nāndod jail infirmary cost Rs. 16,000, and treated 38,100 patients in 1903–4. In the same year 3,280 persons were vaccinated. Nāndod contains a veterinary hospital.

Rājpur State.—Petty State in KĀTHIĀWĀR, Bombay.

Rājpur Town (1).—Town in the head-quarters subdivision of the District of the Twenty-four Parganas, Bengal, situated in 22° 26′ N. and 88° 25′ E., 11 miles south of Calcutta. Population (1901), 10,713. Rājpur was constituted a municipality in 1876. The income during the decade ending 1901–2 averaged Rs. 8,400, and the expenditure Rs. 8,200. In 1903–4 the income was Rs. 10,000, half of which was derived from a tax on persons (or property tax); and the expenditure was Rs. 12,000.

Rājpur Town (2).—Town in Dehra Dūn District, United Provinces, situated in 30° 24′ N. and 78° 6′ E., at the foot of the Himālayas on the main road to Mussoorie, 7 miles from that place and 7 miles from Dehra. Population (1901), 2,900. The place is chiefly of importance as a stage on the journey to Mussoorie, and it is administered under Act XX of 1856. Pure drinking-water is supplied through pipes from the mountains. There are three hotels, a police station, a post office, and a dispensary. In 1902 a small glass factory was opened here. Glass is made from quartz, limestone, and soda, the two first materials being found in the neighbourhood. Four European workmen and forty-four natives were employed in 1903.

Rājpura.—Head-quarters *tahsīl* of the Pinjaur *nizāmat*, Patiāla State, Punjab, lying between 30° 22′ and 30° 36′ N. and 76° 33′ and 76° 49′ E., with an area of 141 square miles. The population in 1901 was 55,117, compared with 59,607 in 1891. The *tahsīl* contains 146 villages, of which Rājpura is the head-quarters. The land revenue and cesses in 1903–4 amounted to 1·9 lakhs.

Rājputāna ('the country of the Rājputs'; also called Rājasthān or

Rājwāra, 'the abode of the princes').—In the administrative nomenclature of the Indian Empire, Rājputāna is the name of a great territorial circle which includes eighteen Native States and two chiefships, together with the small British Province of Ajmer-Merwāra.

These territories lie between 23° 3′ and 30° 12′ N. and 69° 30′ and 78° 17′ E., with a total area of about 130,462 square miles. Included in the latter figure are the areas of Ajmer-Merwāra (2,711 square miles), which, being British territory, has, for Census and Gazetteer purposes, been treated as a separate Province; the two detached districts of Gangāpur (about 26 square miles) and Nandwās (about 36 square miles), which belong respectively to the Gwalior and Indore Darbārs, but, being surrounded by the Udaipur State, form an integral part of Rājputāna; and, lastly, about 210 square miles of disputed lands. On the other hand, the areas of lands held by chiefs of Rājputāna outside the territorial limits have been excluded, notably the three Tonk districts in Central India (about 1,439 square miles).

As traced on the map, Rājputāna is an irregular rhomb, its salient angles to the north, west, south, and east respectively being joined by the extreme outer boundary lines of the States of Bīkaner, Jaisalmer, Bānswāra, and Dholpur.

It is bounded on the west by the province of Sind; on the north-west by the Punjab State of Bahāwalpur; and on the north and north-east by the Punjab. Its eastern frontier marches, first with the United Provinces of Agra and Oudh, and next with Gwalior, while its southern boundary runs across the central region of India in an irregular zigzag line, separating it from a number of other Native States in Central India and the Bombay Presidency, and marking off generally the northern extension of that great belt of territory subject, directly or indirectly, to the Marāthā powers—Sindhia, Holkar, and the Gaikwār of Baroda.

It may be useful to give roughly the geographical position of the several States within this area. Jaisalmer, Jodhpur (or Mārwār), and Bīkaner form a homogeneous group in the west and north, while a tract called Shekhāwati (subject to Jaipur) and Alwar are in the north-east. Jaipur, Bharatpur, Dholpur, Karauli, Būndi, Kotah, and Jhālawār may be grouped together as the eastern and south-eastern States. Those in the south are Partābgarh, Bānswāra, Dūngarpur, and Udaipur (or Mewār), with Sirohi in the south-west. In the centre lie the British Province of Ajmer-Merwāra, the Kishangarh State, the chiefships of Shāhpura and Lāwa, and parts of Tonk. The last State consists of six isolated districts (three of which are, as already stated, in Central India), and cannot be said to fall into any one of these rough geographical groups.

The Arāvalli Hills intersect the country almost from end to end

by a line running nearly north-east and south-west, and about three-fifths of Rājputāna lie north-west of this line, leaving two-fifths on the south-east. The heights of Mount Abu are close to the south-western extremity of the range, while its north-eastern end may be said to terminate near Khetri in the Shekhāwati country, though detached hills are traceable almost as far as Delhi.

Physical aspects.

There are thus two main divisions: namely, that north-west, and that south-east, of the Arāvallis. The former stretches from Sind on the west, northward along the southern Punjab frontier to near Delhi on the north-east. As a whole, this tract is sandy, ill-watered, and unproductive, but improves gradually from a mere desert in the far west and north-west to comparatively fertile and habitable lands towards the north-east. The 'great desert,' forming the whole of the Rājputāna-Sind frontier, extends from the edge of the Rann of Cutch beyond the Lūni river northward; and between it and what has been called the 'little desert' on the east is a zone of less absolutely sterile country, consisting of rocky land cut up by limestone ridges, which to some degree protect it from the desert sands. The 'little desert' runs up from the Lūni river between Jaisalmer and Jodhpur into the northern wastes. The character of this region is the same everywhere. It is covered by sand-hills, shaped generally in long straight ridges, which seldom meet, but run in parallel lines, separated by short and fairly regular intervals, resembling the ripple-marks on a sea-shore upon a magnified scale. Some of these ridges may be two miles long, varying from 50 to 100 feet, or even more, in height; their sides are scored by water, and at a distance they look like substantial low hills. Their summits are blown into wave-like curves by the action of the periodical westerly winds; they are sparsely clothed with stunted shrubs and tufts of coarse grass in the dry season, while the light rains cover them with vegetation. The villages within the desert, though always known by local names, cannot be reckoned as fixed habitations, for their permanence depends entirely on the supply of water in the wells, which is constantly failing or turning brackish; and as soon as the water gives out, the village must shift. A little water is collected in small tanks or pools, which become dry before the stress of the heat begins, and in places there are long marshes impregnated with salt. This is the character, with more or less variation, of the whole north and north-west of Rājputāna. The cultivation is everywhere poor and precarious, though certain parts have a better soil than others, and some tracts are comparatively productive. Along the base of the Arāvalli range from Abu north-east towards Ajmer, the submontane region lying immediately under the abrupt northern slopes and absorbing their drainage is well cultivated, where it is not covered by jungle,

up to the Lūni; but north-west of this river the surface streams are mere rain gutters, the water in the wells sinks lower and lower, and the cultivation becomes poorer and more patchy as the scanty loam shades off into the sandy waste. As the Arāvallis approach Ajmer, the continuous chain breaks up into separate hills and sets of hills. Here is the midland country of Rājputāna, with the city of Ajmer standing among the scattered hills upon the highest level of an open table-land, which spreads eastward towards Jaipur and slopes by degrees to all points of the compass. From Ajmer the Arāvallis trend north-eastward, never reuniting into a chain but still serving to divide roughly, though less distinctly, the sandy country on the north and west from the kindlier soil on the south and east.

The second main division of Rājputāna, south-east of the Arāvallis, contains the higher and more fertile regions. It may be defined by a line starting from near Abu and sweeping round first south-eastward, and then eastward, along the northern frontiers of Gujarāt and Mālwā. Where it meets Gwalior, it turns northward, and eventually runs along the Chambal until that river enters the United Provinces; it then skirts the British possessions in the basin of the Jumna as it goes north past Agra and Muttra up to the neighbourhood of Delhi. In contrast to the sandy plains which are the uniform feature, more or less modified, of the north-west, this south-eastern division has a very diversified character. It contains extensive hill ranges and long stretches of rocky wold and woodland; it is traversed by considerable rivers, and in many parts there are wide vales, fertile table-lands, and great breadths of excellent soil. Behind the loftiest and most clearly defined section of the Arāvallis, which runs between Abu and Ajmer, lies the Udaipur (Mewār) country, occupying all the eastern flank of the range, at a level 800 or 900 feet higher than the plains on the west. And whereas the descent of the western slopes is abrupt towards Mārwār, on the eastern or Mewār side the land falls very gradually as it recedes from the long parallel ridges which mark the water-parting, through a country full of high hills and deep gullies, much broken up by irregular rocky eminences, until it spreads out and settles down into the open champaign of the centre of Udaipur. Towards the south-western corner of that State, the broken country behind the Arāvallis is prolonged farthest into the interior; and the outskirts of the main range do not subside into level tracts, but become a confused network of outlying hills and valleys, covered for the most part with jungle. This is the peculiar region known as the Hilly Tracts of Mewār. All the south-east of Rājputāna is watered by the drainage of the Vindhyas, carried north-eastward by the Banās and Chambal rivers. To the north of the town of Jhālrapātan, the country rises by a very distinct slope to the level of a remarkable plateau called the Pathār, upon which lies a good deal

of the territory of the Kotah and Būndi States. The surface of this table-land is very diversified, consisting of wide uplands, more or less stony, broad depressions, or level spaces containing deep black cultivable soil between hills with rugged and irregular summits, sometimes barren and sometimes covered with vegetation. To the east the plateau falls very gradually to the Gwalior country and the catchment of the Betwā river; and to the north-east there is a very rugged region along the frontier line of the Chambal in the Karauli State, while farther northward the country smooths down and opens out towards the Bharatpur territory, whose flat plains belong to the alluvial basin of the Jumna.

Of mountains and hill ranges, the ARĀVALLIS are by far the most important. Mount Abu belongs by position to these hills, and its principal peak, 5,650 feet above the sea, is the highest point between the Himālayas and the Nīlgiris. The other ranges, though numerous, are comparatively insignificant. The cities of Alwar and Jaipur lie among groups of hills more or less connected; and in the Bharatpur State is a range of some local importance, the highest peak being Alīpur, 1,357 feet above sea-level. South of these are the Karauli hills, whose greatest height nowhere exceeds 1,600 feet; and to the south-west is a low but very well-defined range, running from Māndalgarh in Udaipur north-east across the Būndi territory to near Indargarh in Kotah. These hills present a clear scarp for about 25 miles on their south-eastern face, and give very few openings for roads, the best pass being that in which lies the town of Būndi, whence they are called the Būndi hills. The MUKANDWĀRA range runs across the south-western districts of Kotah from the Chambal to beyond Jhālrapātan, and has a curious double formation of two separate ridges. No other definite ranges are worth mention; but it will be understood that the whole of Rājputāna, excepting only the sandy deserts, is studded with occasional hills and isolated crags, and even so far as the south-west of the Jodhpur State, near Bārmer, there are two which exceed 2,000 feet. All the southern States are more or less hilly, especially Bānswāra, Dūngarpur, and the southernmost tracts of Mewār.

In the north-western division of Rājputāna the only river of any consequence is the LŪNI, which rises in the Pushkar valley close to Ajmer and flows west by south-west for about 200 miles into the Rann of Cutch. The GHAGGAR once flowed through the northern part of the Bīkaner State, but now rarely reaches more than a mile or two west of the town of Hanumāngarh. Its water is, however, utilized for irrigation purposes by means of two canals, which were constructed in 1897 at the joint expense of the Government of India and the Bīkaner Darbār. The south-eastern division has a river system of importance. The CHAMBAL is by far the largest river in Rājputāna, flowing through the

Province for about one-third of its course, and forming its boundary for another third. Its principal tributaries are the KĀLĪ SIND, the PĀRBATI, and the BANĀS. The last, which is next in importance to the Chambal, is throughout its length of 300 miles a river of Rājputāna. It rises in the Arāvallis near the fort of Kūmbhalgarh, and collects all the drainage of the south-eastern slopes of those hills, as well as of the Mewār plateau; its principal tributaries are the Berach, Kothāri, Khāri, Māshi, Dhil, and Morel. Farther to the north is the BĀNGANGĀ, which, rising in Jaipur, flows generally east through Bharatpur and Dholpur into the District of Agra, where, after a course of about 235 miles, it joins the Jumna. The MAHĪ, a considerable river in Gujarāt, runs for some distance through Bānswāra and along the border of Dūngarpur in the extreme south, but it neither begins nor ends within Rājputāna.

There are no natural fresh-water lakes, the only considerable basin being the well-known salt lake at SĀMBHAR. There are, however, numerous artificial sheets of water, many of which are large, throughout the eastern half of the Province, more particularly in the Jaipur State. The oldest and most famous are, however, to be found in Mewār: namely, the DHEBAR LAKE, the Rāj Samand at KĀNKROLI, and the Pichola lake at Udaipur city.

Rājputāna may be divided into two geological regions: namely, the eastern half including the Arāvallis, and the western half. The Arāvalli range, as it exists at present, is but the wreck of what must have been in former days a lofty chain of mountains, reduced to its present dimensions by subaerial denudation; and its upheaval dates back to very early geological times, when the sandstones of the Vindhyan system, the age of which is not clearly established but is probably not later than Lower Palaeozoic, were being deposited. The older rocks composing it are all of crystalline types, like the transition or Dhārwār series of Southern India, and comprise gneisses and schists, with bands of crystalline limestone, slates, and quartzites. These have been divided into two systems, of which the lower, known as the Arāvalli system, includes the gneisses, schists, and most of the slates. All these rocks have been greatly crushed and disturbed, and are thrown into sharp folds running in a direction parallel to the trend of the range; they are traversed by numerous dikes of intrusive granite, as well as of basic igneous rock. Of the gneiss but little is known, and it is doubtful whether any older than the transition series occurs in the range. Calcareous bands are of common occurrence among the schists, and, where they are in contact with veins of intrusive granite, have been altered into a pure white crystalline marble, which is extensively quarried in several localities. The most famous of these quarries are at MAKRĀNA. The slates at the northern end of the range are largely used for roofing

purposes, and the copper and cobalt mines of Khetri are situated in the Arāvalli schists, but have not been worked for many years. Over the schists and slates just described comes a series of slates, limestones, and quartzites, known as the Delhi system. The lower portion, consisting of slates and limestones, was formerly known as the Raiālo group, and the upper portion (quartzites) is called the Alwar group; the latter, however, frequently overlaps the former and rests directly on the Arāvalli schists and slates. In the Bayānā hills in Bharatpur the Alwar group has been divided as follows:—

(5) Wer quartzites and conglomerates.
(4) Damdama quartzites and conglomerates.
(3) Bayānā white quartzite and conglomerates.
(2) Bādalgarh quartzite and shale.
(1) Nithāhar quartzite and bedded trap.

These groups are all separated by slight unconformities of denudation and overlap, but the distinctions appear to be quite local. All the groups vary much in thickness, and are completely superseded near Nithāhar by the Wer quartzites, which rest directly on the schists. Copper has been mined in the quartzites at Singhāna near Khetri, and lead at the Tārāgarh hill close to Ajmer city. Vindhyan rocks of both the lower and upper divisions of that system are found east of the Arāvalli range, their north-western limit being a line of hills running from Fatehpur Sīkri south-west to near Chitor, and then south and south-east. The lower division consists of conglomerates at the base, formed of pebbles derived from the quartzites and schists, followed by red shales, sandstones, and limestones, while the upper division contains red false-bedded and ripple-marked sandstones, with bands of pebbles, and forms a plateau extending east beyond the limits of Rājputāna. The only rocks on the eastern side of the Arāvallis that are of later date than the Vindhyans are of igneous origin, belonging to the great outburst of Deccan trap which covers so large a portion of Central India. They are found in the extreme south-east, south of a line drawn from Nīmach to Jhālrapātan, and conceal all the older formations beneath them.

West of the Arāvallis are a few outliers of Lower Vindhyan rocks, resting unconformably upon the transition quartzites and slates, while in the low country to the north-west are large expanses of sandstones which are considered to belong to the Upper portion of this system. In the Jodhpur State numerous bare rocky hills rise from among the sand-dunes, consisting for the most part of volcanic rocks, rhyolites, and granites. The rhyolites, called the Mallāni series from the district in which they were first found, are poured out upon an ancient land-surface formed of the Arāvalli schists, but actual contacts between the two are very rare. They are pierced by dikes and bosses of granite of

two varieties, one containing hornblende but no mica (Siwāna granite), and the other both hornblende and mica (Jālor granite), and are also traversed by numerous basic igneous rocks having the composition of olivine, dolerite, or diabase. In the desert a sequence of rocks newer than the Vindhyans is found. The oldest are boulder beds of glacial origin occurring at Bāp in Jaisalmer, where they rest on Vindhyan limestones, and they are considered to represent the Tālcher beds at the base of the Gondwāna system. A similar boulder bed occurs at Pokaran in Jodhpur, also resting upon a glaciated surface of older rock; but there is some doubt as to the relations of this bed to the Vindhyan sandstones, and it may be older than Tālcher.

Farther to the west, in Jaisalmer territory, is a series of Jurassic rocks divided into the following five groups:—

(5) Abur group.—Sandstones, shales, and fossiliferous limestones; the latter are buff-coloured, but weather red, and abound in yellow ammonites.

(4) Parihār group.—Soft, white felspathic sandstones, weathering into a clean, sugary sand, and largely composed of fragments of transparent quartz.

(3) Bidesar group.—Purplish and reddish sandstones, with thin layers of black vitreous ferruginous sandstone.

(2) Jaisalmer group.—Thick bands of compact buff and light brown limestone, interstratified with grey, brown, and blackish sandstone, with some conglomerate.

(1) Lāthi (or Bārmer?) group.—White, grey, and brown sandstones, interstratified with numerous bands of hard black and brown ferruginous sandstones and grit. Towards the base are some soft argillaceous sandstones streaked and blotched with purple. Fragmentary plant remains and pieces of dicotyledonous wood have been found.

At Bārmer in Jodhpur, there are some patches of sandstone and conglomerates, resting upon the Mallāni lava-flows and considered to represent the Lāthi group; but they are quite isolated and their position in the series is somewhat doubtful. To the north-west of Jaisalmer town, and near Gajner in Bīkaner, there is a considerable area of Lower Tertiary (Nummulitic) rocks. The deep wells that are necessary for reaching water in this desert also reveal their presence beneath the sand, and in some of these wells near Bīkaner coal has been discovered interstratified with the Nummulitic beds[1]. Layers of unctuous clay or fuller's earth are also found at several localities in this formation, and the clay is exported under the name of *multāni mitti*. The more recent deposits of the Rājputāna desert consist of calcareous conglomerates, which are found in the larger river basins and denote a period when the flow of water was much greater than at present; blown sand,

[1] *Records, Geological Survey of India*, vol. xxx, part iii (1897), pp. 122-5.

and calcareous limestone or *kankar*. The sand-dunes are all of the transverse type: i.e. they have their longer axes at right angles to the direction of the prevailing south-west wind. The sand contains large quantities of the calcareous casts of foraminifera, and it is by the solution of these that the beds of *kankar* are formed. The sand also contains salt, which is leached out by occasional rains and collects in depressions as at Pachbhadrā in Jodhpur and the Sāmbhar Lake.

The most prominent constituent of the vegetation of Rājputāna is the scrub jungle which shows forth, rather than conceals, the arid nakedness of the land. The scrub consists largely of species of *Capparis*, *Zizyphus*, *Tamarix*, *Grewia*, with such plants as *Buchanania latifolia*, *Cassia auriculata*, *Woodfordia floribunda*, *Casearia tomentosa*, *Diospyros montana*, *Calotropis procera*, and *Clerodendron phlomoides*. West of the Arāvalli Hills two cactaceous looking spurges, *Euphorbia Royleana* and *E. neriifolia*, are common, but less so east of that range. Towards the western frontier occur *Tecoma undulata* and *Acacia Jacquemontii*, and plants which are characteristic of the arid regions, such as *Tamarix articulata* and *Myricaria germanica*. *Balanites Roxburghii*, *Balsamodendron Mukul*, and *Alhagi maurorum* are also very common in Western Rājputāna. Farther west the scrub becomes more and more stunted, spiny, and ferocious in its aspect, until it merges into the desert tracts of Sind. Trees form quite a secondary feature of the vegetation amidst the ubiquitous scrub. Among the more common indigenous trees, which grow both east and west of the Arāvallis, are *Sterculia urens*, *Prosopis spicigera*, *Dichrostachys cinerea*, *Acacia leucophloea*, *Anogeissus pendula*, and *Cordia Rothii*, although in Western Rājputāna the term 'tree' applied to some of these is rather a courteous acknowledgement of their descent than an indication of their size. The trees found more or less sparingly on the Arāvallis and in Eastern Rājputāna are *Bombax malabaricum*, *Semecarpus Anacardium*, *Erythrina suberosa*, *Bauhinia purpurea*, *Gmelina arborea*, *Boswellia thurifera*, *Butea frondosa*, *Terminalia tomentosa*, and *T. Arjuna*. In Western Rājputāna, in addition to those mentioned as occurring all over the region, are found *Salvadora persica* and *Acacia rupestris*. Among the introduced or cultivated trees, the more common are *Parkinsonia aculeata*, several figs such as *Ficus glomerata*, *virgata*, *religiosa*, and *bengalensis*, *Acacia farnesiana* and *A. arabica*, *Melia Azadirachta*, and the mulberry, tamarind, mango, pomegranate, peach, custard-apple, and guava. Climbing plants are exemplified by two species of *Cocculus*, *Cissampelos Pareira*, *Mimosa rubricaulis*, *Vitis carnosa*, and *V. latifolia*. The herbaceous vegetation is for a considerable part of the year a dormant quantity, but during the brief rainy season, or in the neighbourhood of water, it springs to light. It consists of species of the following orders:—*Leguminosae*, *Compositae*, *Acanthaceae*, *Boraginaceae*, *Malvaceae*, &c. Growing in

water are to be found *Vallisneria*, *Utricularia*, and *Potamogeton*; and, among grasses, *Andropogon*, *Anthisteria*, and *Cenchrus*. The lower slopes of the Arāvallis show generally the same vegetation which the low hills to the east and the plains to the west exhibit; but higher up, in a moister atmosphere, there are found some species which could not exist in the dry hot plains. Among these are *Aerides*, *Rosa Lyellii*, *Girardinia heterophylla*, *Carissa Carandas*, *Pongamia glabra*, *Sterculia colorata*, *Mallotus philippinensis*, and *Dendrocalamus strictus*. A few ferns also occur on the range, such as *Adiantum caudatum*, *A. lunulatum*, *Cheilanthes farinosa*, *Nephrodium molle*, *N. cicutarium*, and *Actiniopteris radiata*.

There are no wild animals peculiar to Rājputāna. Lions must have been numerous about a hundred years ago, for Colonel Tod writes that Mahārao Rājā Bishan Singh of Būndi, who died in 1821, 'had slain upwards of one hundred lions with his own hand, besides many tigers.' Moreover, five lions were shot in Rājputāna as recently as 1872: namely, four near Jaswantpura in the south of Jodhpur, and a full-grown female on the western slope of Abu; and these are believed to have been the last of their kind in Rājputāna. There are still a fair number of tigers, chiefly in the Arāvalli Hills and in parts of Alwar, Būndi, Jaipur, Karauli, Kotah, Sirohi, and Udaipur, while an occasional tiger is met with in every other State except Bīkaner, Jaisalmer, and Kishangarh. Leopards are common, and the sloth bear (*Melursus ursinus*) is found in the Arāvallis and in other hills and forests, mainly in the south and south-east. Of deer, the *sāmbar* (*Cervus unicolor*) is met with in the same localities as the tiger and bear, though in greater abundance, while the *chītal* (*C. axis*) frequents some of the lower slopes of the hills in Būndi, Kotah, Sirohi, Udaipur, &c. Antelope and gazelle are numerous in the plains, as also are *nīlgai* (*Boselaphus tragocamelus*) in parts. Small game, such as snipe, quail, partridge, wild duck, and hare, can generally be obtained everywhere except in the desert. In the western States there are large numbers of the great Indian and of the lesser bustard, as well as several species of sand-grouse including the imperial, for which Bīkaner is particularly famous.

In the summer the heat, except in the high hills, is great everywhere, and in the west and north-west very great. Hot winds and dust-storms are experienced more or less throughout the country, and in the sandy half-desert tracts are as violent as in any part of India, while in the southern parts they are tempered by hills, verdure, and water. In the winter the climate of the north, especially on the Bīkaner border, where there is sometimes hard frost at night, is much colder than in the southern States; and from the great dryness of the atmosphere in these inland areas the change of temperature between day and night is sudden, excessive, and very trying. The heat, thrown off

rapidly by the sandy soil, passes freely through the dry air, so that at night water may freeze in a tent where the thermometer marked 90° during part of the day. The following table gives the average mean temperature (in degrees F.) and the diurnal range at selected observatories during certain months:—

Observatory.	January.		May.		July.		November.	
	Mean.	Diurnal range.	Mean.	Diurnal range.	Mean.	Diurnal range.	Mean.	Diurnal range.
Bīkaner .	60·4	22·3	95·0	24·4	91·9	18·1	72·3	25·4
Jodhpur .	62·1	26·9	94·0	26·1	90·0	17·9	74·6	31·4
Jaipur .	60·9	25·5	91·8	28·7	85·6	15·5	70·1	30·8
Mount Abu	58·7	15·3	79·5	17·3	70·5	9·5	66·1	15·7

These figures are for periods varying from twenty-one to twenty-five years ending with 1901, except in the case of Jodhpur, where they are for only five years.

The rainfall is very unequally distributed throughout Rājputāna. The western portion comes very near the limits of that part of Asia which belongs to the rainless areas of the world, though even on this side the south-west winds bring annually a little rain from the Indian Ocean. In Jaisalmer and parts of Jodhpur and Bīkaner, the annual fall averages scarcely more than 6 or 7 inches, as the rain-clouds have to pass extensive heated sandy tracts before reaching these plains, and are emptied of much of their moisture upon the high ranges in Kāthiāwār and the nearer slopes of the Arāvallis. In the south-west, which is more directly reached, and with less intermediate evaporation, by the periodical rains, the fall is much more copious, and at Abu has on more than one occasion exceeded 100 inches, namely in 1875, 1881, 1892, and 1893. But, except in these south-west highlands of the Arāvallis, the rain is most abundant in the south-east of Rājputāna. Along the southern States, from Bānswāra to Jhālawār and Kotah, the land gets not only the rains from the Indian Ocean, which sweep up the valleys of the Narbadā and Mahī rivers across Mālwā to the countries about the Chambal, but also the remains of the moisture which comes up from the Bay of Bengal in the south-east; and this supply occasionally reaches all Mewār. In this part of the country, if the south-west rains fail early, those from the south-east usually come to the rescue later in the season; on the other hand, the northern part of Rājputāna gets a scanty share of the winter rains of Northern India, while the southern part usually gets none at all, beyond a few gentle showers about Christmas. In the central tract, about Ajmer and towards Jaipur, the periodical supply of rain is very variable. If the eastern winds are strong, they bring good rains from the Bay of Bengal; whereas if the south-west monsoon prevails, the rain is comparatively late and light. Sometimes

a good supply comes in from both seas, and then the fall is larger than in the eastern tract; but it is usually much less. In the far north of Rājputāna the wind must be very strong, and the clouds very full, to bring any appreciable supply from either direction. It may be said shortly that from Bīkaner and Jaisalmer in the north-west to Bānswāra in the south, and Kotah and Jhālawār in the south-east, there is a very gradually increasing rainfall from about 6 to 40 inches, the amount increasing very rapidly after the Arāvallis have been crossed. The subjoined table gives the average annual rainfall (in inches) at five representative stations during the twenty-five years ending 1901:—

Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total of year.
Bīkaner . .	0·37	0·23	0·20	0·12	0·84	1·59	3·26	3·13	1·00	0·08	0·08	0·16	11·06
Jodhpur . .	0·26	0·15	0·02	0·06	0·44	1·42	3·89	4·80	1·67	0·21	0·11	0·15	13·18
Udaipur . .	0·10	0·12	0·07	0·12	0·59	3·78	6·77	7·68	4·81	0·37	0·19	0·17	24·77
Jaipur . .	0·58	0·24	0·31	0·12	0·64	2·41	8·06	8·46	3·39	0·29	0·18	0·26	24·94
Mount Abu .	0·34	0·30	0·13	0·10	0·97	5·24	22·17	19·23	9·66	0·60	0·29	0·23	59·26

To this it may be added that the annual rainfall in the three eastern States (Bharatpur, Dholpur, and Karauli) varies between 24 and 29 inches, in Kotah and Jhālawār between 31 and 37 inches, and at the town of Bānswāra is about 40 inches. The greatest fall recorded in any one year was over 130 inches at Mount Abu in 1893, while in 1899 not one-hundredth of an inch was registered at the rain-gauge stations of Khābha and Rāmgarh in the west of the Jaisalmer State.

Earthquakes are not uncommon at Abu and, being accompanied with much rumbling noise, are somewhat alarming, but during recent years at any rate they have done no harm. In years of excessive rainfall, the rivers sometimes cause damage and loss of life. For example, in 1875 the Banās rose in high flood and, in its passage past Tonk town, is said to have swept away villages and buildings far above the highest water-mark. Again, the Bāngangā river, till it was brought under control in 1895 by means of several irrigation works constructed by the Bharatpur Darbār, has been responsible for much damage, not only in that State but in the adjoining District of Agra, notably in 1873, when villages were literally swept away by the floods, and Bharatpur city itself was saved with great difficulty, and again in 1884 and 1885.

History.

The early history of the country now called Rājputāna is, like that of other parts of India, somewhat obscure, and the materials for its reconstruction are scanty. The discovery of two rock-inscriptions of Asoka (about 250 B.C.) near BAIRĀT in the Jaipur State seems to show that his dominions extended westwards to, at any rate, this part of the country. In the second

century B.C. the Bactrian Greeks came down from the north and north-west; and among their conquests are mentioned the old city of Nagari (called Mādhyamika) near Chitor, and the country round and about the Kālī Sind river, while the coins of two of their kings, Apollodotus and Menander, have been found in the Udaipur State.

From the second to the fourth century A.D. the Sakas or Scythians were powerful, especially in the south and south-west; and an inscription (dated about 150) at Girnār mentions a famous chief, Rudradāman, as ruler of Maru (Mārwār) and the country round the Sābarmati, &c. The Gupta dynasty of MAGADHA ruled over parts of the Province from about the end of the fourth century to the beginning of the sixth century, when it was overthrown by the White Huns under their Rājā Toramāna. In the first half of the seventh century, Harshavardhana, a Rājput of the Vaisha or Bais clan, ruled at Thānesar and Kanauj, and conquered the country as far south as the Narbadā, including, of course, a great deal of Rājputāna. At the time of the visit of the Chinese pilgrim, Hiuen Tsiang (629–45), Rājputāna fell within four main divisions which were then called Gurjjara (Bīkaner, the western States, and part of Shekhāwati), Vadari (the southern and some of the central States), Bairāt (Jaipur, Alwar, and a portion of Tonk), and Muttra (the three eastern States of Bharatpur, Dholpur, and Karauli). Included in the kingdom of Ujjain were Kotah, Jhālawār, and some of the outlying districts of Tonk.

Between the seventh and the beginning of the eleventh century several Rājput dynasties arose. The Gahlots (or, as they are now called, the Sesodias) migrated from Gujarāt and occupied the south-western portion of Mewār, their earliest inscription in Rājputāna being dated 646. Next came the Parihārs, who began to rule at Mandor in Jodhpur a few years later; and they were followed in the eighth century by the Chauhāns and the Bhātis, who settled down respectively at Sāmbhar and in Jaisalmer. Lastly, in the tenth century the Paramāras and the Solankis began to be powerful in the south-west. It is interesting to note that, of these Rājput clans, only three are now represented by ruling chiefs of Rājputāna, namely the Sesodias, Bhātis, and Chauhāns; and of these three, only the first two are still to be found in their original settlements, the Chauhāns having moved gradually south-west and south-east to Sirohi, Būndi, and Kotah. Of the other Rājput clans now represented among the chiefs of Rājputāna, the Jādons obtained a footing in Karauli about the middle of the eleventh century, though they had lived in the vicinity for a very long time; the Kachwāhas came to Jaipur from Gwalior about 1128; the Rāthors from Kanauj settled in Mārwār in the beginning of the thirteenth century; and the Jhāla State of Jhālawār did not come into existence till 1838.

The first Musalmān invasions (1001–26) found Rājput dynasties seated in all the chief cities of Northern India (Lahore, Delhi, Kanauj), but the march of Mahmūd's victorious army across Rājputāna, though it temporarily overcame the Solankis, left no permanent impression on the clans. The latter were, however, seriously weakened by the feuds between the Solankis and the Chauhāns, and between the latter and the Rāthors of Kanauj, which give such a romantic colour to the traditions of the concluding part of the twelfth century. Nevertheless, when Muhammad Ghorī began his invasions, the Chauhāns fought hard before they were driven out of Delhi and Ajmer in 1193, and Kanauj was not taken till the following year. Kutb-ud-dīn garrisoned Ajmer, and the Musalmāns appear gradually to have overawed, if they did not entirely reduce, the open country. They secured the natural outlets of Rājputāna towards Gujarāt on the south-west, and the Jumna on the north-east; and the effect was probably to press back the clans into the outlying districts, where a more difficult and less inviting country afforded a second line of defence against the foreigner—a line which they have held successfully up to the present day.

Indeed, setting aside for the present the two Jāt States of Bharatpur and Dholpur and the Muhammadan principality of Tonk, Rājputāna may be described as the region within which the pure-blooded Rājput clans have maintained their independence under their own chieftains, and have kept together their primitive societies ever since their principal dynasties in Northern India were cast down and swept away by the Musalmān irruptions. The process by which the Rājput clans were gradually shut up within the natural barrier of difficult country, which still more or less marks off their possessions, continued with varying fortune, their frontiers now receding, now again advancing a little, until the end of the fifteenth century. In the thirteenth century the rich southern province of Mālwā was annexed to the Delhi empire; and at the beginning of the fourteenth century, Alā-ud-dīn Khiljī finally subdued the Rājput dynasties in Gujarāt, which also became an imperial province. At the same time he reduced Ranthambhor, a famous fortress of the eastern marches, and sacked Chitor, the capital of the Sesodias. But, although the early Delhi sovereigns constantly pierced the country by rapid invasions, plundering and slaying, they made no serious impression on the independence of the chiefs. The fortresses, great circumvallations on the broad tops of scarped hills, were desperately defended and, when taken, were hard to keep. There was no firm foothold for the Musalmāns in the heart of the country, though the Rājput territories were encircled by incessant war and often rent by internal dissensions. The line of communication between Delhi and Gujarāt by Ajmer seems indeed to have been usually open

to the imperial armies; and the Rājputs lost for a time most of the great forts which commanded their eastern and most exposed frontier, and appear to have been slowly driven inward from this side. Yet no territorial annexations were very firmly held by the imperial governors from Delhi during the Middle Ages. Chitor was very soon regained and the other strongholds changed hands frequently.

When, however, the Tughlak dynasty went to pieces about the close of the fourteenth century, and had been finally swept away by Tīmūr's sack of Delhi, two independent Musalmān kingdoms were set up in Gujarāt and Mālwā. These powers proved more formidable to the Rājputs than the unwieldy empire had been, and throughout the fifteenth century there was incessant war between them. For a short interval, at the beginning of the sixteenth century, came a brilliant revival of Rājput strength. The last Afghān dynasty at Delhi was breaking up in the usual high tide of rebellion, and Mālwā and Gujarāt were at war with each other, when there arose the famous Rānā Sangrām Singh (Sanga) of Mewār, chief of the Sesodias. His talents and valour once more enlarged the borders of the Rājputs, and obtained for them something like predominance in Central India. Aided by Medini Rao, chief of Chanderi, he fought with distinguished success against both Mālwā and Gujarāt. In 1519 he captured Mahmūd II; and in 1526, in alliance with Gujarāt, he totally subdued the Mālwā state, and annexed to his own dominions all the eastern provinces of that kingdom, and recovered the strong places of the eastern marches, such as Ranthambhor and Khāndhār. The power of the Rājputs was now at its zenith, for Rānā Sanga was no longer the chief of a clan but the king of a country. The Rājput revival was, however, as short-lived as it was brilliant.

In the year when Mālwā was subdued, and one month before its capital surrendered, the emperor Bābar took Delhi and extinguished the Pathān dynasty, so that Rānā Sanga had only just got rid of his ancient enemy in the south, when a new and greater danger threatened him from the north. He marched, however, towards Bayāna, which he took from the imperial garrison placed there, and Bābar pushed down to meet him. At Khānua in Bharatpur, in March, 1527, the Rānā, at the head of all the chivalry of the clans, encountered Bābar's army and was defeated after a furious conflict, in which fell Hasan Khān, the powerful chief of the Mewāti country, and many Rājputs of note. In this way the great Hindu confederacy was hopelessly shattered; Rānā Sanga died in the same year, covered with wounds and glory, and the brief splendour of united Rājasthān waned rapidly. In 1534 Bahādur Shāh of Gujarāt took Chitor, and recovered almost all the provinces which the Rānā had won from Mālwā; and the power and predominance of the Sesodia clan were transferred to

the Rāthors of the west, where Māldeo, chief of Jodhpur, had become the strongest of all the Rājput rulers. The struggle which began soon after Bābar's death, between Humāyūn and the Pathān Sher Shāh, had relaxed the pressure of the Delhi power upon the clans from this side, and Māldeo greatly increased in wealth and territory. In 1544 he was attacked by Sher Shāh in great force, but gave him such a bloody reception near Ajmer that the Pathān abandoned further advance into the Rāthor country, and turned southward through Mewār into Bundelkhand, where he was killed before the fort of Kālinjar. It is clear that the victory at Khānua extinguished the last chance which the Rājputs ever had of regaining their ancient dominions in the rich plains of India. It was fatal to them, not only because it broke the war-power of their one able leader, but because it enabled the victor to lay out the foundations of the Mughal empire. A firmly consolidated government surrounding Rājputāna necessarily put an end to the expansion, and gradually to the independence, of the clans; and thus the death of Humāyūn in 1556 marks a decisive era in their history.

The emperor Akbar, shortly after his accession, attacked Māldeo, the Rāthor chief, recovered from him Ajmer and several other important places, and forced him to acknowledge his sovereignty. He then undertook to settle the whole region systematically. Chitor was again besieged and taken, with the usual grand *finale* of a sortie and massacre of the defenders. Udaipur was occupied, and though the Sesodias did not formally submit, they were reduced to guerrilla warfare in the Arāvallis. In the east, the chief of the Kachwāhas at Amber had entered the imperial service, while the Chauhāns of Būndi were overawed or conciliated. They surrendered the fort of Ranthambhor, the key to their country, and were brought with the rest within the pale of the empire. Akbar took to wife the daughters of two great Rājput houses; he gave the chiefs or their brethren high rank in his armies, sent them with their contingents to command on distant frontiers, and succeeded in enlisting the Rājputs generally (save the Sesodias) not only as tributaries but as adherents. After him Jahāngīr made Ajmer his head-quarters, whence he intended to march in person against the Sesodias who had defeated his generals in Mewār; and here at last he received, in 1614, the submission of Rānā Amar Singh of Udaipur, who, however, did not present himself in person. But though the Rānās never attended the Mughal court, they sent henceforward their regular contingent to the imperial army, and the ties of political association were drawn closer in several ways. The Rājput chiefs constantly entered the imperial service as governors and generals (there are said to have been at one time forty-seven Rājput mounted contingents), and the headlong charges of their cavalry became famous in the wars of the empire. Both Jahāngīr and Shāh Jahān were sons of Rājput mothers,

and the latter in exile was protected at Udaipur up to the time of his accession. Their kinship with the clans helped these two emperors greatly in their contests for the throne, while the strain of Hindu blood softened their fanaticism and mitigated their foreign contempt for the natives of India.

When Shāh Jahān grew old and feeble, the Rājput chiefs took their full share in the war between his sons for the throne, siding mostly with Dārā, their kinsman by the mother's side; and Rājā Jaswant Singh of Jodhpur was defeated with great slaughter in 1658 at Fatehābād, near Ujjain, in attempting to stop Aurangzeb's march upon Agra. Aurangzeb employed the Rājputs in distant wars, and their contingents did duty at his capital, but he was too bigoted to retain undiminished the hold on them acquired by Akbar. Towards the end of his reign he made bitter, though unsuccessful, war upon the Sesodias and devastated parts of Rājputāna; but he was very roughly handled by the united Rāthors and Sesodias, and he had thoroughly alienated the clans before he died. Thus, whereas up to the reign of Akbar the Rājput clans had maintained their political freedom, though within territorial limits that were always changing, from the end of the sixteenth century we may regard their chiefs as having become feudatories or tributaries of the empire; and, if Aurangzeb's impotent invasion be excepted, it may be affirmed that from Akbar's settlement of Rājputāna up to the middle of the eighteenth century the Rājput clans did all their serious warfare under the imperial banner in foreign wars, or in the battles between competitors for the throne.

When Aurangzeb died, they took sides as usual. Shāh Alam Bahādur, the son of a Rājput mother, was largely indebted for his success to the swords of his kinsmen; and the obligations of allegiance, tribute, and military service to the empire were undoubtedly recognized as defining the political status of the chief so long as an emperor existed who could exact them. After the death of Aurangzeb, the Rājputs attempted the formation of an independent league for their own defence, in the shape of a triple alliance between the three leading clans, the Sesodia, Rāthor, and Kachwāha; and this compact was renewed when Nādir Shāh threw all Northern India into confusion. But the treaty contained a stipulation that, in the succession to the Rāthor and Kachwāha chiefships, the sons of a Sesodia princess should have preference over all others; and this attempt to set aside the rights of primogeniture was the fruitful source of disputes which soon split up the federation. In the rising storm which was to wreck the empire, the chiefs of Jodhpur and Jaipur held their own, and indeed increased their territories in the general tumult, until the wasting spread of the Marāthā freebooters brought in a flood of anarchy that threatened every political structure in India. The whole period of 151 years from

Akbar's accession to Aurangzeb's death was occupied by four long and strong reigns, and for a century and a half the Mughal was fairly India's master. Then came the ruinous crash of an overgrown centralized empire whose spoils were fought over by Afghāns, Sikhs, Jāts, revolted viceroys, and rebellious military adventurers. The two Saiyids governed the empire under the name of Farrukh Siyar; Jodhpur was invaded, and the Rāthor chief was forced to give a daughter to the titular emperor. He leagued with the Saiyids until they were murdered, when, in the tumult that followed, he seized Ajmer in 1721.

About thirty years later, there were disputes regarding the succession to the Jodhpur chiefship, and one of the claimants called in the Marāthās, who got possession of Ajmer about 1756; and from this time Rājputāna became involved in the general disorganization of India. The primitive constitution of the clans rendered them quite unfit to resist the professional armies of Marāthās and Pathāns, and their tribal system was giving way, or at best transforming itself into a disjointed military feudalism. About this period, a successful leader of the Jāt tribe took advantage of the dissolution of the imperial government to seize territories close to the right bank of the Jumna and to set up a dominion. He built fortresses and annexed districts, partly from the empire and partly from his Rājput neighbours, and his acquisitions were consolidated under his successors until they developed into the present Bharatpur State. The Rājput States very nearly went down with the sinking empire. The utter weakness of some of the chiefs and the general disorder following the disappearance of a paramount authority in India dislocated the tribal sovereignties and encouraged the building of strongholds against predatory bands, the rallying of parties round petty leaders, and all the general symptoms of civil confusion. From dismemberment among rival adventurers the States were rescued by the appearance of the British on the political stage of Northern India. In 1803 all Rājputāna, except the remote States in the north and north-west, had been virtually brought under by the Marāthās, who exacted tribute, annexed territory, and extorted subsidies. Sindhia and Holkar were deliberately exhausting the country, lacerating it by ravages or bleeding it scientifically by relentless taxgatherers; while the lands had been desolated by thirty years of incessant war.

Under this treatment the whole group of ancient chieftainships was verging towards collapse, when Lord Wellesley struck in for the British interest. The victories of Generals Lake and Wellesley permanently crippled Sindhia's power in Northern India, and forced him to loosen his hold on the Rājputāna States in the east and north-east, with two[1] of which the British made a treaty of alliance against the Marāthās. In

[1] Bharatpur in September and Alwar in November, 1803.

1804 Holkar marched through the heart of Rājputāna, attempted the fort of Ajmer, and threatened our ally, the Mahārājā of Jaipur. Colonel Monson went against him and was enticed to follow him southward beyond Kotah, when the Marāthās suddenly turned on the English commander and hunted him back to Agra. Then Holkar was, in his turn, driven off by Lord Lake, who smote him blow on blow; but Lake himself failed signally in the dash which he made against the fort of Bharatpur, where Holkar had taken refuge under protection of the Jāt chief, who broke his treaty with the British and openly succoured their enemy. The fort was afterwards surrendered, a fresh treaty being concluded; and Holkar was pursued across the Sutlej and compelled to sign a treaty which stripped him of some of his annexations in Rājputāna.

Upon Lord Wellesley's departure from India policy changed, and the chiefs of Rājputāna and Central India were left to take care of themselves. The consequence was that the great predatory leaders plundered at their ease the States thus abandoned to them, and became arrogant and aggressive towards the British power. This lasted for about ten years, and Rājputāna was desolated during the interval; the roving bands increased and multiplied all over the country into Pindāri hordes, until in 1814 Amīr Khān was living at free quarters in the heart of the Rājput States, with a compact army estimated at 30,000 horse and foot and a strong force of artillery. He had seized some o the finest districts in the east, and he governed them with no better civil institution than a marauding and mutinous force. The States of Jodhpur and Jaipur had brought themselves to the brink of extinction by the famous feud between the two chiefs for the hand of a princess of Udaipur; while the plundering Marāthās and Pathāns encouraged and strenuously aided them to ruin each other until the dispute was compromised upon the basis of poisoning the girl.

In 1811 Sir Charles Metcalfe, Resident at Delhi, reported that the minor chiefs urgently pressed for British intervention, on the ground that they had a right to the protection of the paramount power, whose obvious business it was to maintain order; but it was not till 1817 that the Marquis of Hastings was able to carry into action his plan for breaking up the Pindāri camps, extinguishing the predatory system, and making political arrangements that should effectually prevent its revival. Lawless banditti were to be put down; the general scramble for territory was to be ended by recognizing lawful governments once for all, and fixing their possessions, and by according to each recognized State British protection and territorial guarantee, upon condition of acknowledging our right of arbitration and general supremacy in external disputes and political relations. Upon this basis overtures for

negotiations were made to all the Rājput States, and in 1817 the British armies took the field against the Pindāris. Amīr Khān disbanded his troops, and signed a treaty which confirmed him in possession of certain districts held in grant, and by which he gave up other lands forcibly seized from the Rājputs. His territories, thus marked off and made over, constitute the existing State of Tonk.

Of the Rājput States (excluding Alwar, whose treaty, as already mentioned, is dated November, 1803), the first to conclude treaties were Karauli (in November) and Kotah (in December, 1817); and by the end of 1818 similar engagements had been entered into with all[1] the other States, with clauses settling the payment of Marāthā tributes and other financial charges. There was a great restoration of plundered districts and rectification of boundaries. Sindhia gave up Ajmer to the British, and the pressure of the Marāthā powers upon Rājputāna was permanently withdrawn.

Since then the political history of Rājputāna has been comparatively uneventful. In 1825 a serious disturbance over the succession to the chiefship of Bharatpur caused great excitement, not only locally, but in the surrounding States, some of them even secretly taking sides in the quarrel which threatened to spread into war. Accordingly, with the object of preserving the public peace, the British Government determined to displace a usurper and to maintain the rightful chief; and Bharatpur was stormed and taken by British troops on January 18, 1826. In 1835 the prolonged misgovernment of Jaipur culminated in serious disturbances which the British Government had to compose; and in 1839 a force marched to Jodhpur to put down and conciliate the disputes between the chief and his nobles which disordered the country. The State of Kotah had been saved from ruin and raised to prosperity by Zālim Singh, who, though nominally minister, really ruled the country for fifty years; and the treaty of 1817 had vested the administration of the State in Zālim Singh and his descendants. But this arrangement naturally led to quarrels between the latter and the heirs of the titular chief, wherefore in 1838 a part of the Kotah territory was marked off as a separate State, under the name of Jhālawār, for the direct descendants of Zālim Singh, a Rājput of the Jhāla clan. On the deposition in 1896 of the late chief of Jhālawār, there were found to be no direct descendants of Zālim Singh; and the Government of India accordingly decided that part of the territory which had been made over in 1838 should be restored to Kotah, and that the remaining districts should be formed into a new State for the descendants of the family to which Zālim Singh belonged. This distribution of territory came into effect in 1899.

[1] Except Sirohi, whose treaty is dated September, 1823; and, of course, Jhālawār, which did not come into existence till 1838.

When the Mutiny of the Bengal army began in May, 1857, there were no European soldiers in Rājputāna, except a few invalids recruiting their health on Mount Abu. Nasīrābād was garrisoned by sepoys of the Company's forces; and four local contingents, raised and commanded by British officers but mainly paid from the revenues of certain States, were stationed at Deoli, Beāwar, Erinpura, and Kherwāra. The chiefs of Rājputāna were called upon by the Governor-General's Agent (General George Lawrence) to preserve peace within their borders and collect their musters; and in June the troops of Bharatpur, Jaipur, Jodhpur, and Alwar were co-operating in the field with the endeavours of the British Government to maintain order in British Districts and to disperse the mutineers. But these levies, however useful as auxiliaries, were not strong enough to take the offensive against the regular regiments of the mutineers. Moreover, the interior condition of several of the States was critical: their territory, where it bordered upon the country which was the focus of the Mutiny, was overrun with disbanded soldiers; the fidelity of their own mercenary troops was questionable, and their predatory and criminal tribes soon began to harass the country-side. In this same month (May, 1857) the artillery and infantry mutinied at Nasīrābād; the Kotah Contingent was summoned from Deoli to Agra, where it joined the Nīmach mutineers in July; and the Jodhpur Legion at Erinpura broke away in August. The Merwāra Battalion and the Mewār Bhīl Corps, recruited for the most part from the indigenous tribes of Mers and Bhīls respectively, were the only native troops in all Rājputāna who stood by their British officers. In the important centre of Ajmer, General Lawrence maintained authority with the aid of a detachment of European troops from Deesa, of the Merwāra Battalion, and of the Jodhpur forces; but throughout the country at large, from the confines of Agra to Sind and Gujarāt, the States were left to their own resources, and their conduct and attitude were generally very good. In Jaipur tranquillity was preserved; the Bīkaner chief continued to render valuable assistance to British officers in the neighbouring Districts of the Punjab, and the central States kept orderly rule. In the western part of Jodhpur some trouble was caused by the rebellion or contumacy of Thākurs, especially of the Thākur of Awa, who had taken into his service a body of the mutinied Jodhpur Legion; but the ruling chief continued most loyal. Towards the south, the territory of Mewār was considerably disturbed by the confusion which followed the mutinies at Nīmach, by the continual incursions of rebel parties, and by some political mismanagement; but, on the whole, this tract of country remained comparatively quiet, and the Mahārānā hospitably sheltered several European families that had been forced to flee from Nīmach. The Hāraoti chiefs of Kotah, Būndi, and Jhālawār kept

their States in hand, and sent forces which took charge of Nīmach for some six weeks during the early days when the odds were heaviest against the British in Northern India. After the fall of Delhi this period of suspense ended; and the States could afford to look less to the question of their own existence in the event of general anarchy, and more to the duty of assisting the British detachments. Jaipur at once joined heartily in the exertions of Government to pacify the country. In Jodhpur the chief had his hands full of work with his own unruly feudatories, and the British assisted him in reducing them. In Kotah the troops were profoundly disaffected and beyond the control of the chief; they murdered the Political Agent and broke into open revolt. The adjoining chief of Būndi gave practically no aid, partly through clannish and political jealousies of Kotah; but the Mahārājā of Karauli, who greatly distinguished himself by his active adherence to the British side throughout 1857, sent troops to the aid of his relative, the Kotah chief, when he was besieged in his own fort by his mutineers, and held the town until it was taken by assault by a British force in March, 1858, an event that marked the extinction of armed rebellion in Rājputāna.

The year 1862 was notable for the grant to every ruling chief in the Province of a *sanad* guaranteeing to him (and his successors) the right of adoption in the event of failure of natural heirs; and this was followed by a series of treaties or agreements relating to the mutual extradition of persons charged with heinous offences, and providing for the suppression of the manufacture of salt and the abolition of the levy of all transit-duty on that commodity. During the last forty years great progress has been made. The country has been opened out by railways and roads, and life and property are more secure. Regular courts of justice, schools, colleges, hospitals, and well-managed jails have been established; the system of land revenue administration has been improved, petty and vexatious cesses have been generally abolished, and, in several States, regular settlements, on the lines of those in British India, have been introduced.

Rājputāna abounds in objects of antiquarian interest, but hitherto very little has been done to survey, describe, or preserve these links with the past.

The earliest remains are the rock-inscriptions of the great Mauryan king, Asoka, discovered at BAIRĀT in Jaipur; the ruins of some Buddhist monasteries at the same place; and two *stūpas* and a fragmentary inscription of the third century B.C. at Negari near CHITOR. At Kholvi in the Jhālawār State is a series of rock-cut temples, interesting as being probably the most modern group of Buddhist caves in India; they are believed to date from A.D. 700 to 900.

Of Jain structures, the most famous are the two well-known temples

at Delwāra near ABU, of the eleventh and thirteenth century respectively, and the Kīrtti Stambh, or 'tower of fame,' of about the same age at CHITOR, which have just been repaired under the general direction of the Government of India. The oldest Jain temples are, however, those near Sohāgpura in Partābgarh, at Kālinjara in Bānswāra, and at one or two places in Jaisalmer and Sirohi, while remains exist at Ahār near Udaipur, and at Rājgarh and Pāranagar in Alwar.

Among the earliest specimens of Hindu architecture must be mentioned the stone pillar at BAYĀNA with an inscription dated A. D. 372; the remains of the *chaorī* or hall at MUKANDWĀRA, of the fifth century; and the ruined temples at Chandrāvati near JHĀLRAPĀTAN, of the seventh century. Noteworthy examples of military architecture are the forts of Chitor and Kūmbhalgarh in Udaipur; Ranthambhor in Jaipur; Jālor and Jodhpur in Mārwār; Birsilpur in Jaisalmer, said to have been built in the second century; Vasantgarh in Sirohi; Bijaigarh in Bharatpur; Tahangarh in Karauli; and Gāgraun in Kotah. The most exquisitely carved temples are to be found in the Udaipur State at Barolli and at Nāgdā near the capital, the former of the ninth or tenth, and the latter of the eleventh century. Another celebrated building is the Jai Stambh or 'tower of victory' at Chitor, built in the middle of the fifteenth century.

The Muhammadans have left a few memorials in the shape of mosques and tombs, chiefly in Jodhpur and Alwar; but they are of little interest. The earliest appears to be a mosque at Jālor, attributed to Alā-ud-dīn Khiljī.

Population.

Rājputāna is made up of eighteen States and two chiefships, and the population at each of the three enumerations was: (1881) 10,100,542, (1891) 12,220,343, and (1901) 9,723,301. Included in the figures for 1891 and 1901 are the inhabitants[1] of small tracts belonging to the Central India chiefs of Gwalior and Indore, but geographically situated in Mewār; while, on the other hand, the population[2] of Tonk's three districts in Central India has been excluded throughout. Further, it is necessary to mention that the Census of 1901 was the first complete one ever taken in the Province. At the two earlier enumerations the Girāsias of the Bhākar, a wild tract in Sirohi, and the Bhīls of Mewār, Bānswāra, and Dūngarpur were not regularly counted, but their number was roughly estimated from information given by the illiterate headmen of their villages; and these estimates have been included in the figures for 1881 and 1891. In some cases the headman gave what he believed to be the number of huts in his village (when four persons, two of each sex, were allowed to each hut), while at other times he made a guess

[1] 18,118 in 1891 and 11,407 in 1901.

[2] 167,850 in 1881; 181,135 in 1891; and 129,871 in 1901.

at the total population, and his figures were duly entered. This course was rendered necessary by the extreme aversion displayed by these shy and timid tribes to the counting of men and houses. The wildest stories were in circulation as to the objects of the Census. Some of the Bhīls thought that the Government of India were in search of young men for employment in a foreign war, or that the idea was to raise new taxes; while, in 1891, others feared that they were going to be seized and thrown as a propitiatory sacrifice into a large artificial lake then being constructed at Udaipur.

Consequently, the Bhīls and Girāsias were left unenumerated, and the census figures for 1881 and 1891 must be considered as only approximate. But, such as they are, they show an increase in population during that decade of nearly 21 per cent., compared with about 9 per cent. for the whole of India; while between 1891 and 1901 there was a decrease of nearly 2½ million inhabitants, or about 20 per cent. The decade preceding the Census of 1891 was one of prosperity and steady growth, but the apparent increase in population was probably due, to some extent, to improved methods of enumeration. Between 1891 and 1901 the country suffered from a succession of seasons of deficient or ill-distributed rainfall; and though it did not perhaps lose as heavily as the census figures suggest, the loss was undoubtedly very great, and the main cause was the disastrous famine of 1899–1900 and its indirect results, lower birth-rate and increased emigration. Fever epidemics broke out in 1892, 1899, and 1900, the most virulent of all being that following the heavy rainfall of August and September, 1900, which was aided in its ravages by the impaired vitality of the people. Vital statistics scarcely exist; but the general consensus of opinion appears to be that the mortality from fever between August, 1900, and February, 1901, exceeded that caused by want of food in the period during which famine conditions prevailed. A reference to the last column of the table on the next page will show that the only States in which an increase in population occurred were Alwar and Karauli, and that the decrease was greatest in Būndi, Dūngarpur, Jaisalmer, Jhālawār, Partābgarh, and Udaipur, and least in Bharatpur, Dholpur, and Jaipur. Alwar has benefited for some years by a careful and wise administration, and the famine was less severely felt there and in the three eastern States (Bharatpur, Dholpur, and Karauli) than in other parts of Rājputāna. In considering the figures for Dūngarpur and Udaipur, it should be borne in mind that the population in 1891 included a large estimated (probably over-estimated) number of Bhīls; but at the same time there is no doubt that both States lost very heavily in the famine. The figures for Jhālawār require a word of explanation. As mentioned above, this State was remodelled in 1899, and when the Census of 1901 had been taken, an attempt was made to work out

DISTRIBUTION OF POPULATION IN 1901

Name of State or chiefship.	Area in square miles.	Number of		Total population.	Number of persons per square mile.	Percentage of variation in population between 1891 and 1901.
		Towns.	Villages.			
Udaipur *	12,753	14	6,069	1,030,212	81	−44·7
Bānswāra	1,946	1	1,286	165,350	85	−21·8
Dūngarpur	1,447	1	631	100,103	69	−39·5
Partābgarh	886	1	412	52,025	59	−40·9
Total, Mewār Residency	17,032	17	8,398	1,347,690	79	−42·1
Jodhpur	34,963	27	4,030	1,935,565	55	−23·4
Jaisalmer	16,062	1	471	73,370	4½	−36·6
Sirohi	1,964	5	408	154,544	79	−19
Total, Western States Residency	52,989	33	4,909	2,163,479	41	−23·6
Jaipur	15,579	38	5,735	2,658,666	171	− 5·9
Kishangarh	858	3	218	90,970	106	−27·5
Lāwa	19	—	6	2,671	141	−20·5
Total, Jaipur Residency	16,456	41	5,959	2,752,307	167	− 6·7
Būndi	2,220	2	817	171,227	77	−42·1
Tonk †.	1,114	2	542	143,330	129	−28
Shāhpura	405	1	132	42,676	105	−32·9
Total, Hāraoti-Tonk Agency	3,739	5	1,491	357,233	95	−36
Bharatpur	1,982	7	1,295	626,665	316	− 2·1
Dholpur	1,155	3	540	270,973	235	− 3·2
Karauli	1,242	1	436	156,786	126	+ 0·1
Total, Eastern States Agency	4,379	11	2,271	1,054,424	241	− 2·1
Kotah	5,684	4	2,609	544,879	96	−24·2
Jhālawār	810	2	408	90,175	111	−40·3
Total, Kotah-Jhālawār Agency	6,494	6	3,017	635,054	98	−26·9
Bīkaner	23,311	9	2,101	584,627	25	−29·7
Alwar	3,141	7	1,755	828,487	264	+ 7·9
Grand total	‡127,541	§128	29,901	9,723,301	76	−20

* Including small tracts belonging to Central India chiefs—62 square miles, 39 villages, and 11,407 inhabitants.

† Rājputāna districts only.

‡ This is the area of the several States and chiefships in 1901, excluding about 210 square miles of disputed lands.

§ The town of Sāmbhar is under the joint jurisdiction of Jaipur and Jodhpur, and has been counted only once in the grand total.

from the old census papers the population in 1891. This was reported to be 151,097, which meant a loss during the succeeding ten years of 40 per cent. of the people; but some mistake appears to have been made in the calculation, for it is difficult to believe that the State, which was under British management from 1896 to 1899, and in which the famine was not severely felt, while the relief measures and administration generally were satisfactory, lost so heavily.

The 128 towns contained 288,696 occupied houses and 1,410,192 inhabitants, or nearly 5 persons per house; and the urban population was thus 14·5 per cent. of the total, compared with 10 per cent. for India as a whole. The principal towns are the cities of JAIPUR (population, 160,167), the sixteenth largest in India; JODHPUR (79,109); ALWAR (56,771); BĪKANER (53,075); UDAIPUR (45,976); BHARATPUR (43,601); TONK (38,759); and KOTAH (33,657), all capitals of States and all (except Udaipur) municipalities.

The rural population numbered 8,313,109, distributed in 29,901 villages containing 1,622,787 occupied houses, thus giving about 54 houses per village and slightly more than 5 persons per house. The average population of a village is 278, varying from 335 in the western States, where scarcity of water and insecurity of life have compelled people to gather together in certain localities, to 153 in the southern States, which contain a large Bhīl population living in small hamlets scattered over an extensive area of wild country. These Bhīl hamlets are called *pāls*, and consist of a number of huts built on separate hillocks at some distance from each other; elsewhere the villages are usually compact collections of buildings.

Rājputāna supports, on an average, 76 persons per square mile: namely, 35 in the sandy plains of the west, 79 in the more fertile but broken and forest-clad country of the south, and 165 in the eastern division, which is watered by several rivers and has a fair rainfall and a good soil. The most densely populated State is Bharatpur, bordering on the Jumna, with 316 persons per square mile; and the lowest density (in all India), 4½ per square mile, is recorded in the almost rainless regions of Jaisalmer. Within the States, the density in the several districts varies considerably; thus in Jodhpur, it is 100 per square mile in the north-east, and 10 in the west; in Jaipur, 332 in the north-east, and 92 in the south-west; and in Alwar, 430 in the east, and 166 in the south-west. Throughout Rājputāna the relation between rainfall and population seems to be singularly close.

Of the total population in 1901, 97·6 per cent. had been born in Rājputāna, and immigrants from other parts of India (chiefly the Punjab, the United Provinces, Central India, Ajmer-Merwāra, and the Bombay Presidency) numbered 233,718. On the other hand, the number of persons born in Rājputāna but enumerated elsewhere in

India was 900,224, so that, in this interchange of population, there was a net loss to Rājputāna of 666,506 persons. But in the western States emigration is an annual event, whatever be the nature of the season, as there is practically but one harvest, the *kharīf*, and as soon as it is gathered in September or October large numbers of people leave every year to find employment in Sind, Bahāwalpur, and elsewhere, usually returning shortly before the rains are expected to break. Moreover, the recent famine caused more than the usual amount of emigration. Lastly, the traders known as Mārwāris, who were born in Rājputāna and have their homes and families there, play an important part in the commerce of India; and there is hardly a town where the 'thrifty denizen of the sands of Western and Northern Rājputāna has not found his way to fortune, from the petty grocer's shop in a Deccan village to the most extensive banking and broking connexion in the commercial capitals of both east and west India.'

No vital statistics are recorded for Rājputāna as a whole; but the registration of births and deaths was, in 1904, attempted in ten entire States and one chiefship, having a total area of 53,178 square miles and a population of 3,051,555, and at the capitals of six other States and two small towns which together contain 330,660 inhabitants. The mortality statistics are believed to be more accurate than those of births, but, except perhaps in some of the larger towns, both sets of figures are unreliable.

The principal diseases treated in the hospitals are malarial affections, ulcers and abscesses, diseases of the skin or eye, respiratory and rheumatic affections, diseases of the ear, and diarrhoea and dysentery. Malarial and splenic affections account for more than 18 per cent. of the cases, and the variations in the different States or divisions are hardly worth noting, though perhaps the large proportion in the dry climate of Bīkaner and the smaller in the more moist eastern States are rather contrary to the general opinion. Ulcers and abscesses account for nearly 12 per cent., and seem most prevalent in the centre and east, while diseases of the skin (also about 12 per cent.) are especially frequent in the western States, possibly owing to the want of water for cleansing purposes. Diseases of the eye are admitted in largest numbers in the centre, east, and south, while respiratory affections are less frequent in the west than elsewhere. Cholera and small-pox visitations occur periodically; but as regards the latter, the effects of vaccination are everywhere becoming apparent, and those who most oppose the operation are not unfrequently convinced, when too late, by the fate of their own children and the escape of those of their neighbours, of their error in neglecting vaccination.

Plague is believed to have made its first appearance in Rājputāna in 1836. It broke out with great virulence at Pāli, a town of Jodhpur,

about the middle of July, and extended thence to Jodhpur city, Sojat, and several other places in Mārwār, as well as to a few villages in the Udaipur State; and it appears to have finally disappeared at the beginning of the hot season of 1837. The fact that the disease first started among the cloth-stampers of Pāli led to the supposition that it was imported in silks from China. An interesting account of the outbreak, and of the measures taken to combat it and prevent its spread, will be found at pp. 148–69 of the *General Medical History of Rājputāna*[1]. The present epidemic started in Bombay in 1896, but, excluding a few cases discovered at railway stations, did not extend to Rājputāna till November, 1897, when it appeared in five villages of Sirohi and lasted till April, 1898. Between October, 1896, and the end of March, 1905, there have been 37,845 seizures and 31,980 deaths in Rājputāna. No cases have been reported from Būndi, Dūngarpur, Jaisalmer, and Lāwa, while Kishangarh shows but one and Bīkaner three. Two-thirds of the deaths have occurred in Alwar, Jaipur, and Mewār, but the percentage of deaths to total population is highest in Partābgarh and Shāhpura.

Of the total population in 1901, more than 52 per cent. were males, or, put in another way, for every 1,000 males there were 905 females, compared with 963 for the whole of India; and in each of the four main religions this excess of males was observable, except among the Jains, where females slightly predominated. Various theories have been advanced to explain the difference in the proportion of the sexes; but there is no reason to believe that it is due, at any rate to any appreciable extent, to female infanticide, though this practice was once very prevalent in Rājputāna. An examination of the census statistics shows that between the ages of one and two there were more female than male infants, even among the Hindus, and that females exceeded males among the Musalmāns up to the age of four, and among the Jains and Animists up to five.

Dealing next with the population according to civil condition, it is found that 48 per cent. of the males were unmarried, 43 married, and 9 widowed, and that the similar figures for females were 30, 50, and 20 respectively. The relatively low proportion of spinsters and the high proportion of widows are results of the custom which enforces the early marriage of girls and discourages the remarriage of widows.

Infant marriages still prevail to some extent, but are less common than they used to be, and this is largely attributable to the efforts of the Walterkrit Rājputra Hitkārini Sabhā. This committee is named after the late Colonel Walter, who was the Governor-General's Agent in Rājputāna in 1888. On previous occasions attempts had been made to settle the question of marriage expenses with a view to

[1] By Colonel T. H. Hendley, I.M.S. (Calcutta, 1900).

suppress infanticide among the Rājputs, but they failed because no uniform rule was ever adopted for the whole country. In 1888 Colonel Walter convened a general meeting of representatives of almost all the States to check these expenses. The co-operation of the chiefs having been previously secured, the committee had no great difficulty in drawing up a set of rules for the regulation of marriage and funeral expenses, the ages at which marriages should be contracted, and other cognate matters. These rules, which were passed unanimously and widely distributed in the various States, where local committees of influential officials were appointed by the Darbārs to see to their proper observance, laid down the maximum proportion of a man's income that might be expended on (*a*) his own or his eldest son's marriage, and (*b*) that of other relatives, together with the size of the wedding party and the *tyāg* or largess to Chārans, Bhāts, Dholis, and others. It was also laid down that no expenditure should be incurred on betrothals, and the minimum age at marriage was fixed at 18 for a boy and 14 for a girl. It was subsequently ruled that no girl should remain unmarried after the age of 20, and that no second marriage should take place during the lifetime of the first wife, unless she had no offspring or was afflicted with an incurable disease. These rules apply primarily to Rājputs and Chārans, but have been adopted by several other castes. The Walterkrit Sabhā meets annually at Ajmer in the spring, when the reports of the local committees are discussed, the year's work examined, and a printed report is published. That for 1905 shows that, in that year, of 4,418 Rājput and Chāran marriages reported, the age limits were infringed in only 87 cases and the rule as to expenditure in only 54 cases.

Widow marriage is permitted by all castes except Brāhmans, Rājputs, Khattrīs, Chārans, Kāyasths, and some of the Mahājan classes. As a rule no Brāhmans or priests officiate, and the ceremonies are for the most part restricted to the new husband giving the woman bracelets and clothes and taking her into his house. The custody of the children by the first marriage remains with the deceased husband's family, and the widow forfeits all share in the latter's estate. Among many of the lower castes (for example, the Bhīls and Chamārs) the widow is expected to marry her late husband's younger brother; and if she is unwilling to do so, and marries some other man, the latter has to pay compensation to the younger brother.

The rules which in theory govern the custom of polygamy are well known; but in practice, except among the wealthy sections of the community and the Bhīl tribes, a second wife is rarely taken unless the first is barren or bears only female children, or suffers from some incurable disease. The custom just referred to, by which the widow contracts a second marriage with her deceased husband's younger

brother, leads in many cases to a man having more than one wife, and the Bhīls usually have two wives. At the Census of 1901 there were in Rājputāna, among all religions taken together, 1,046 wives to every 1,000 husbands; and the statistics show that polygamy is far more common among the Jains, Hindus, and Animists than among the Musalmāns, and that it is most prevalent in the western States. On the other hand, there must have been many married men who were temporarily absent from their homes and had left their wives behind them.

The principal language is Rājasthānī, which is spoken by no less than 7,035,093 persons, or more than 72 per cent. of the total population. Omitting minor local differences, there are at least sixteen real dialects, which fall into four main groups; namely, Mārwārī, Jaipurī, Mewātī, and Mālwī. By far the most important is Mārwārī, which has its home in Western Rājputāna, is spoken by 4,276,514 inhabitants, and has representatives all over India. It has many varieties, of which the best known are the Thalī of the desert, the Mewārī of Udaipur State, the Bāgrī of north-east Bīkaner, and the Shekhāwatī of north-west Jaipur. Jaipurī may be taken as representing the dialects of Eastern and South-Eastern Rājputāna, of which it and Hāraotī are the chief; it is spoken by 2,118,767 of the inhabitants. Mewātī (or Bighota) is the dialect of Rājasthānī which most nearly approaches Western Hindī, and in Alwar merges into Braj Bhāshā; it is the language of 478,756 persons, living almost entirely in Alwar and Bharatpur, the country of the Meos. The head-quarters of Mālwī are in the Mālwā country, and it is spoken by over 160,000 persons, chiefly in Jhālawār, Kotah, and Partābgarh. When mixed with Mārwārī forms, it is called Rāngrī and is spoken by Rājputs. Among other languages common in Rājputāna are two dialects of Western Hindī, namely Braj Bhāshā and Hindustānī (i.e. Urdū); and there are, of course, several Bhīl dialects in the south, all based on Gujarātī, but forming a connecting link between it and Rājasthānī.

Among castes and tribes, the most numerous are the Brāhmans, Jāts, Mahājans, Chamārs, Rājputs, Mīnās, Gūjars, Bhīls, Mālis, and Balais.

The Brāhmans number 1,012,396 or 10·4 per cent. of the population. They are found everywhere, but are proportionately strongest in Jaipur (over 13 per cent.), Karauli, Dholpur, and Bīkaner. Their principal divisions are Daima, Gaur, Kanaujia, Pāliwāl, Purohit, Pushkarna, Sāraswat (Sārsut), and Srīmāl; and their chief occupations are priestly duties, trade, State or private service, and agriculture. Many of them hold land rent free.

The Jāts (845,909, or 8·7 per cent. of the population) were very widely established all over North-Western Rājputāna when the now

dominant clans began to rule in those parts, and without doubt this tract was one of their most ancient habitations. At the present time they outnumber every other caste in Bīkaner, Kishangarh, and Jodhpur, and they are regarded as the best cultivators in the country. Socially, they stand at the head of the widow-marrying castes, and in Bharatpur and Dholpur they are politically important, as the chiefs of those States are Jāts. In Bīkaner the headman of the Godāra sept has the privilege of making the *tilak* or mark of inauguration on the forehead of each new chief of that State, in accordance with a promise made by Rao Bīka when he took parts of the country from them in the fifteenth century.

The Mahājans or Baniās (754,317, or 7·8 per cent. of the population) are for the most part traders and bankers, some having business connexions all over India, while not a few are in State service. They are distributed throughout the country, but are proportionately most numerous in Sirohi, where they form 12·2 per cent. of the population, and Partābgarh (about 11 per cent.). The principal caste units are Agarwāl, Oswāl, Mahesrī, Khandelwāl, Saraogī, and Porwāl.

The Chamārs number 688,023, or 7 per cent. of the population; they are curriers, tanners, day-labourers, and village menials, and many are agriculturists. Their name is derived from the Sanskrit *charmakāra*, a 'worker in leather,' and they claim a Brāhmanical origin. The story runs that five Brāhman brothers were cooking their food on the roadside, when a cow came and died close to the spot. After some discussion, the youngest brother offered to remove the carcass, and when he had done so his brethren excommunicated him; and since then it has been the business of his descendants to remove the carcasses of cattle. The Chamārs are more numerous than any other caste in the States of Bharatpur, Dholpur, Kotah, and Tonk. In BĪKANER a member of this caste founded a sect about 1830 which is called after him, Lālgir, and numbers high-caste men among its adherents; a brief account will be found in the article on that State.

The Rājputs number 620,229, or 6·4 per cent. of the population. According to tradition there are two branches of this tribe, the Sūrajbansi or Solar race, and the Chandrabansi or Lunar race. To these must be added the Agnikula or Fire group. Sūrajbansi Rājputs claim descent from Ikshwāku, son of the Manu Vaivaswat, who was the son of Vaivaswat, the sun. Ikshwāku is said to have been born from the nostril of the Manu as he happened to sneeze. The principal clans of the Solar group are the Sesodia, Rāthor, and Kachwāha, of which the chiefs of Udaipur, Jodhpur, and Jaipur are the respective heads.

The Lunar race affect to be descended from the moon, to whom they trace their line through Budha or Mercury, the son of Soma. The principal clans are the Jādon and its branch, the Bhāti, represented

by the chiefs of Karauli and Jaisalmer respectively; the Tonwar, which once ruled in Delhi; and the Jādeja, to which the rulers of Cutch and Navānagar in the Bombay Presidency belong.

The Agnikulas or Fire tribes are supposed to have been brought into existence by a special act of creation of comparatively recent mythological date. The earth was overrun by demons, the sacred books were held in contempt, and there was none on whom the devout could call for help in their troubles. Viswāmitra, once a Kshattriya, who had raised himself to be a Brāhman, moved the gods to assemble on Abu; four images of *dūbh* grass were thrown into the fire fountain, and called into life by appropriate incantations. From these sprang the four clans: the Paramāra or Ponwār, the Chāluk or Solanki, the Parihār, and the Chauhān. The chiefs of Būndi, Kotah, and Sirohi belong to the last named.

Of the various Rājput clans enumerated in 1901, the Rāthor stood first with 122,160; the Kachwāha second with 100,186; and the Chauhān third with 86,460. Then followed the Jādon clan (74,666), the Sesodia (51,366), the Ponwār (43,435), the Solanki (18,949), and the Parihār (9,448). The Rājputs are, of course, the aristocracy of the country, and as such hold the land to a very large extent, either as receivers of rent or as cultivators. By reason of their position as integral families of pure descent, as a landed nobility, and as the kinsmen of ruling chiefs, they are also the aristocracy of India; and their social prestige may be measured by observing that there is hardly a tribe or clan (as distinguished from a caste) in all India which does not claim descent from, or irregular connexion with, one of these Rājput stocks. The Rājput proper is very proud of his warlike reputation, and most punctilious on points of etiquette. The tradition of common ancestry has preserved among them the feeling which permits a poor Rājput yeoman to hold himself as good a gentleman as the most powerful landowner of his own clan, and superior to any high official of the professional classes. But, as a race, they are inclined to live too much on the past and to consider any occupation other than that of arms or government as derogatory to their dignity; and the result is that those who do not hold land have rather dropped behind in the modern struggle for existence, where book-learning counts for more than strength of arm. As cultivators, they are lazy and indifferent, and prefer pastoral to agricultural pursuits; they look upon all manual labour as humiliating, and none but the poorest classes will themselves follow the plough. Excluding the 34,445 who are Musalmāns (mostly in the western States), the Rājputs are orthodox Hindus, and worship the divinities favoured by the sect to which they happen to belong. Their marriage customs are strictly exogamous, a marriage within the clan being regarded as incestuous, and in this way each

clan depends on others for its wives. But running through the entire series of septs are to be found the usages of isogamy and hypergamy, which exercise a profound influence on their society. The men of the higher sept can take their wives from a lower, but a corresponding privilege is denied to the women; the result is a surplus of women in the higher septs, and competition for husbands sets in, leading to the payment of a high price for bridegrooms, and enormously increasing the expense of getting a daughter married. It was partly to remedy this state of affairs that the Walterkrit Sabhā, already mentioned, was started.

The Mīnās number 477,129, or nearly 5 per cent. of the population, being proportionately strongest in Karauli and Būndi. There are numerous clans, of which one (the Osāra) contains the *aslī* or unmixed stock, but has very few members; the others are of mixed blood, claiming irregular descent from Rājputs, Brāhmans, Gūjars, &c. The Mīnās are among the earliest inhabitants of Rājputāna, and were formerly the rulers of much of the country now called Jaipur. They were dispossessed by the Kachwāha Rājputs about the beginning of the twelfth century, and for some time after it was the custom for one of their number to mark the *tīka* on the forehead of each new chief of Amber. In Jaipur and Alwar they are divided into two main classes, namely *zamīndāri* and *chaukīdāri*, which do not intermarry. The former are steady and well-behaved cultivators (and are found also in the three eastern States, Bharatpur, Dholpur, and Karauli), while the latter were, and to some extent still are, famous as marauders. In Būndi State and in the rugged country round Jahāzpur and Deoli, which is called the Kherār and belongs to Būndi, Jaipur, and Udaipur, are found the Parihār Mīnās, who claim descent from the Parihār Rājputs of Mandor. They are a fine athletic race, formerly notorious as savage and daring robbers; but they have settled down to a great extent, and the infantry portion of the 42nd (Deoli) Regiment (or the Mīnā Battalion, as it was called from 1857 to 1860) has for many years been largely composed of them. Nearly 97 per cent. of the Mīnās of Rājputāna are Hindus; but among them, in the south and south-east of Jodhpur, is a sept called Dhedia which, though large in numbers, is low in social standing, chiefly because its members eat the flesh of cows.

The Gūjars (462,739) are mostly cattle breeders and dealers and agriculturists. They are a stalwart race, very similar to the Jāts, with whom they can eat and drink, although they occupy a slightly lower social position. They were formerly noted cattle-lifters in Dholpur and Karauli, but now give little trouble. There are two main endogamous divisions of Gūjars, namely Laur and Khāri; and in Bharatpur the former has the privilege of furnishing nurses for the ruling family.

The BHĪLS are described in a separate article. In 1901 they numbered 339,786, or about 3½ per cent. of the total population. They are found in every State except Alwar, Bharatpur, Dholpur, Karauli, and the petty chiefship of Lāwa, but are most numerous in their early home in the south.

An account of the Meos will be found in the article on MEWĀT. In 1901 the tribe numbered 168,596, nearly 98 per cent. of whom were in Alwar and Bharatpur.

Taking the population by religions, Hindus in 1901 numbered 8,089,513, or more than 83 per cent.; Musalmāns, 924,656, or 9½ per cent.; Animists, 360,543, or about 3¾ per cent.; Jains, 342,595, or 3½ per cent.; Christians, 2,840; and 'others' (such as Sikhs, Aryās, Pārsīs, Brāhmos, and Jews), 3,154.

Hindus predominate in every State except Bānswāra. In Karauli they form nearly 94 per cent. of the population, and in Dholpur, Būndi, Jaipur, and Shāhpura over 90. The lowest proportions are found in the south, namely: Partābgarh (61), Dūngarpur (56), and Bānswāra (under 31 per cent.). No attempt was made at the last Census to record the numerous sects of Hindus, but an account of the Dādūpanthis will be found in the article on NARAINA, a town in Jaipur State which is their head-quarters.

Of the Musalmāns, over 97 per cent. belong to the Sunni sect, more than 2 to the Shiah, and the rest (4,735 persons) to the Wahhābi sect. Those of indigenous origin still retain their ancient Hindu customs and ideas. The local saints and deities are regularly worshipped, the Brāhman officiates at all family ceremonials side by side with the Musalmān priest, and if in matters of creed they are Muhammadans in matters of form they are Hindus.

The Animists are found in eleven States, and are mostly Bhīls and Girāsias residing in the wild tracts in the south. They share the usual belief that man is surrounded by a ghostly company of powers, elements, and tendencies, some of whom dwell in trees, rivers, or rocks, while others preside over cholera, small-pox, or cattle diseases, and all require to be diligently propitiated by means of offerings and ceremonies, in which magic and witchcraft play an important part.

The main Jain sects are the ancient divisions of the Digambara, whose images are unclothed, whose ascetics go naked, and who assert that women cannot attain salvation; and the Swetāmbara, who hold the opposite view regarding women, and whose images are clothed in white. An offshoot from the latter, known as Dhūndia, carries to an extreme the doctrine of the preservation of animal life, and worships *gurūs* instead of idols. In 1901 more than 32 per cent. of the Jains returned their sect as Digambara, 45 as Swetāmbara, and the rest as Dhūndia.

The Christians (2,840) are made up of 969 Europeans and allied races, 503 Eurasians, and 1,368 natives. They have increased by 53 per cent. since 1891, namely by 21 per cent. among Europeans and Eurasians, and more than 111 per cent. among the natives. The latter figure is due chiefly to missionary enterprise, which received a great impetus during the famine of 1899–1900, when the various societies opened refuges for orphans and other destitute persons. Of the 1,368 native Christians enumerated in 1901, 40 per cent. were Presbyterians, 20 per cent. Roman Catholics, a further 20 per cent. Methodists, and 10 per cent. belonged to the Church of England. The largest Christian community is to be found in Jaipur, where the United Free Church of Scotland Mission has had a branch since 1866, and where there are important railway centres at Bāndikui and Phalera. Next comes Sirohi with its railway population at Abu Road, and a number of Europeans at Mount Abu; and then, in order, follow Kotah, Udaipur, Jodhpur, Alwar, Bharatpur, and Bīkaner. The Scottish mission above mentioned has had branches at the city of Udaipur since 1877, at Alwar since 1880, at Jodhpur since 1885, and at Kotah since 1889, while the Church Missionary Society has been represented at the cantonment of Kherwāra since 1881, and at Bharatpur since 1902.

With the exception of Sirohi State, Rājputāna is included in the Anglican see of the Bishop of Nāgpur, and in the Roman Catholic Prefecture of Rājputāna, which was established in 1891 and is administered by the Capuchin Fathers of Paris, the Prefect Apostolic having his head-quarters at Agra. Sirohi State forms part of the Anglican diocese, and of the Roman Catholic archdiocese, of Bombay.

More than 56 per cent. of the total population in 1901 returned some form of agriculture as their principal means of subsistence; more than 51 per cent. were either landlords or tenants, nearly 5 per cent. were field-labourers, and 0·2 per cent. were growers of special products, rent collectors, &c. In addition to these, about 223,000 persons (or a further $2\frac{1}{4}$ per cent.), who mentioned some other employment as the chief source of their livelihood, were also partially agriculturists; and $5\frac{1}{2}$ per cent. more, who were shown under the head of general labourers, were doubtless to some extent supported by work in the fields. In Dholpur over 74 per cent., and in Bīkaner 71 per cent., of the population are entirely dependent on agriculture, while the lowest ratios (32 and 33 per cent.) are found in Sirohi and Lāwa. More than 18 per cent. of the total population, including dependents, are maintained by the preparation and supply of material substances; and of these, rather less than one-third find a livelihood by the provision of food and drink, nearly one-fourth by working and dealing in textile fabrics and dress, while about one-eighth are engaged in the leather industry. Personal and domestic services provide employment

for about $4\frac{3}{4}$ per cent., and commerce for $2\frac{1}{2}$ per cent. of the population.

The majority of the people have three meals a day: namely, the first in the early morning before going to work, the second at midday, and the third any time after sunset. The morning meal consists either of the remains of the previous evening's *chapātis*, or of a kind of porridge (*rābri*) of the flour of maize, *bājra*, or *jowār*, coarsely pounded and boiled overnight in diluted buttermilk. The midday and evening meals usually consist of *chapātis*, pulse, and vegetables, washed down with milk or water. The *chapātis* or unleavened cakes are made of wheat, barley, maize, *bājra*, or *jowār*, according to the means of the consumer. A favourite dish of the more substantial farmers in the north and west is pounded *bājra* mixed with *moth* in the proportion of four to one, boiled in water, and improved by the addition of a little clarified butter or fresh oil. Animal food is not in general use, though most Rājputs and some of the other Hindu castes eat it when they can afford it. The flesh of goats and wild hog is highly esteemed by the Rājputs, while that of sheep or fowls is considered inferior in both flavour and nutriment. Speaking generally, rice is a luxury, and sugar, sweetmeats, &c., are consumed only on festive occasions.

There is nothing peculiar about the dress of the people. The poorer Hindu males wear a turban of sorts, a *dhotī* or loin-cloth, a short jacket reaching to the waist, and sometimes a sheet over the shoulders which can be used as a wrap for the upper part of the body. Those of the higher and middle classes wear either *dhotī* or trousers, a shirt (*kurtā*), a long coat (*angarkhā*), and a cloth round the waist. The richer men wear a long coat, called *achkan* and often very handsome, in place of, or in addition to, the *angarkhā*, and the use of a kerchief (*rumāl*) round the neck or over the turban is popular in some States. There is but little difference in dress between Hindus and Muhammadans; the latter almost always wear trousers, and button their coats to the left instead of to the right like Hindus and Europeans. The dress of a Hindu female consists of a coloured skirt, a half-sleeved bodice, and a sheet or veil taken over the head and round the body. Musalmān women wear trousers (*paijāmas*), a long bodice more like a shirt, and the usual veil; some of them wear skirts over their trousers, or a skirt and coat sewn as one garment and called *tilak*. The wilder Bhīls are scantily clad, their apparel generally consisting of a dirty rag round the head and a waistcloth of limited length; their women-folk dress like the poorer Hindus, but wear a number of brass bangles and rings on their arms and legs.

Except where building stone is plentiful, the houses of the people are generally of mud or unburnt bricks; some have flat mud roofs supported on wooden beams, while others have sloping roofs of ill-

baked tiles. The majority are low and badly ventilated, and usually of the same pattern, namely a quadrangular enclosure with rooms ranged round the sides. In the desert tracts the poorer classes have to be content with beehive-shaped huts, made from roots and grass, and usually surrounded by a thorn fence, which serves as a protection against the sand-drifts and hot winds as well as a cattle-pen. The Bhīls build their own huts, thatching them with straw and leaves, and in rare cases with tiles, while the walls consist of interwoven bamboos, or mud and loose stones.

Hindus cremate their dead as a rule; but infants who die before they are weaned, and Sanyāsis, Gosains, Bishnois, and Nāths are buried. Again, some of the low castes, such as the Chamārs, Kolīs, and Regars, bury when they cannot afford to burn. The Bhīls almost invariably burn their dead; but the first victim of an outbreak of small-pox is buried, and if, within a certain time, no one else in the village dies of the disease, the body is disinterred and burnt. The Musalmāns always practise inhumation.

Apart from cricket, football, lawn tennis, and racquets, which are played at the capitals of some of the States, the chief games of the younger generation are marbles, blindman's-buff, hide-and-seek, top-spinning, and games like hockey, tip-cat, prisoner's base, &c. Kite-flying is practised by both children and adults; and the indoor amusements are chess, cards, and a kind of backgammon played with cowries and dice. The wealthier Rājputs are fond of horse exercise, and many of them are in the front rank as horsemen and polo-players. The Bhīls are no mean archers, and in their own peculiar way get a certain amount of sport yearly. But for the adult rural population as a whole there are few amusements or relaxations; they meet on the *hatai* or platform, to smoke and discuss the weather and crops, and the monotony of their daily life is varied only by an occasional marriage or the celebration of one of the annual festivals.

The more important Hindu festivals are the Holī and the Gangor in March; the Tīj or third of Sāwan, being the anniversary of the day on which Pārbatī was, after long austerities, reunited to Siva, in July; the Janmashtmī, or anniversary of the birth of Krishna, in August; the Dasahra in September or October; and the Dewāli in the following month. The chief Muhammadan festivals are the Muharram, the two Īds, and the Shab-i-barāt.

Among some of the higher and middle classes of the Hindus, it is customary when a child is born to send for the family priest or astrologer, who, after making certain calculations, announces the initial letter of the name to be given to the infant. Children are usually called after some god or goddess, or the day of the week on which they were born, or some jewel or ferocious animal, or are given a name

suggestive of power, physical or political. The name of a man's father is never added to his own, whether in addressing him by speech or letter, but the name of his caste or *gotra* is sometimes prefixed or suffixed: e. g. Kothāri Hanwant Chand and Bachh Rāj Bhandāri. The distinctive feature in the names of those belonging to the higher Hindu castes is that the suffixes are generally indicative of the subdivision to which they belong. Thus, among the Brāhmans, the name will often end with Deo, Shankar, Rām, Dās, &c.; among the Kshattriyas almost always with Singh; and among the Vaisyas with Mal, Chand, Lāl, &c. The Sūdras, on the other hand, usually have only one name, a diminutive of that of a higher class, such as Bheria (Bhairon Lāl), Chhatria (Chhatar Bhūj), and Udā (Udai Rām). The most common suffixes used in the names of places are:— *-pur*, *-pura*, *-khera*, *-war*, *-wāra*, *-nagar*, *-ner*, and *-oli*, all meaning 'town,' 'village,' 'hamlet,' or 'habitation'; *-garh* ('fort'); and *-mer* ('hill').

Agriculture.

Excluding Sirohi State and the comparatively fertile portions of Mārwār found along the banks of the Lūni river and its tributaries, the country to the west, north, and north-west of the Arāvalli Hills, comprising the whole of Jaisalmer, Bīkaner, and Shekhāwati, and most of Jodhpur, is a vast sandy tract. Water is far from the surface and scarce; and irrigation is, in most parts, impracticable, for not only is the supply of water too scanty to admit of its being used for this purpose, but the depth of the wells usually exceeds 75 feet, the maximum at which well-irrigation has been found profitable. The Lūni occasionally overflows and, on the subsidence of its waters, an alluvial deposit remains, which yields good crops of wheat, and there are tracts in Jodhpur and Bīkaner where artificial irrigation is possible; but, speaking generally, the people have to depend for their supply of grain almost entirely on the crops sown in the rainy season, which, in this part of the country, is of very uncertain character. When rain does fall, it sinks into the sandy soil and does not flow off the surface, so that a very small rainfall suffices for the crops. In the eastern half of Rājputāna, the agricultural conditions are very different. The rainfall is heavier and more regular; every variety of soil is found, from the light sand of the west to the richest alluvial loam, and there are extensive tracts of black mould which produce excellent crops of wheat and barley without artificial irrigation. Further, water is generally near the surface, and wells are very numerous; there are several considerable rivers and streams, and a large number of tanks. It follows, then, that, except in a very few parts, two crops a year are the rule and not the exception.

There are two kinds of crops: those cultivated during the rainy season are called *kharīf* or *sāwnū* or *siālu*, while the cold-season crops are known as *rabi* or *unālu*.

The system of agriculture is everywhere very simple, and the implements in use are of the rudest description. For the rains crops, ploughing operations commence with the first good fall of rain, and the land is ploughed from once to three times according to the stiffness of the soil. In the western half of Rājputāna, a camel or a pair of bullocks is yoked to the plough, but sometimes donkeys or buffaloes are used. The camels of the desert walk swiftly, and the ploughs are of very trifling weight; consequently each cultivator is able to put a large extent of ground under crop. It is estimated that, in the light sandy soil, a man with a camel or a pair of good bullocks can plough from two to three acres a day. The seed is usually sown by means of a drill or bamboo tube attached to the rear of the plough, but sometimes, especially in the case of *til*, broadcast. In the cultivation of the *rabi* crops more trouble is taken. The land receives several ploughings transverse to each other, and is harrowed and levelled in order to retain the moisture. When the seed has been sown and the crops begin to sprout, considerable attention is paid to weeding; thorn fences are erected to keep out cattle and hog; scarecrows are set up to frighten away the birds, and persons are engaged to keep watch and are provided with slings or a noisy instrument, called *thali*, in the western States.

In the south of Rājputāna a peculiar mode of cultivation is practised by the Bhīls; it is called *wālar* or *wālra*, and resembles the *jhūm* of Assam and the *kumri* of the Western Ghāts. It consists of cutting down a patch of forest and burning the trees on the ground in order to clear room for a field, which is manured by the ashes. After a year or two, the soil is exhausted and another felling takes place. The system, which is, of course, most destructive to the forests, has been prohibited in Dūngarpur and Sirohi.

The principal rains crops are *bājra* (*Pennisetum typhoideum*) or spiked millet, and *jowār* (*Sorghum vulgare*) or great millet. The former is sown as early as possible, even in May if rain falls in that month, and takes about three months to ripen; it is the chief crop in the western and northern States, and also in Alwar, Bharatpur, Dholpur, Karauli, and the greater part of Jaipur. *Jowār* requires a stiffer soil and more rain, and is sown later; it is the most common crop in Būndi, Jhālawār, Kotah, Tonk, and parts of Partābgarh and Udaipur. Other *kharīf* crops are maize or Indian corn, the food of the masses in the south; *moth* and *mūng*, both species of the kidney bean; cotton; and a coarse kind of rice. The cultivation of the latter is practically confined to Bānswāra, Dūngarpur, and parts of Jaipur, Karauli, and Kotah. Of these crops, the only ones that usually require manure or artificial irrigation are maize and cotton. The principal *rabi* crops are wheat, barley, gram or chick-pea, sugar-cane, poppy, tobacco, *san* (Indian

hemp), and indigo. They require either constant irrigation or one of the best natural soils, and are therefore to be found chiefly in the favoured eastern half of the country. The oilseeds consist of *til* (*Sesamum indicum*) in the rainy season, and mustard, rape, linseed, and castor in the cold season. Of these, *til* is by far the most important; it is usually grown by itself, but is sometimes mixed with *jowār* or cotton.

Manure is hardly used at all in the desert tracts in the west and north, and elsewhere is applied chiefly to irrigated lands, where the more valuable crops such as wheat, barley, poppy, sugar-cane, and tobacco are grown, or to gardens. It consists of the dung of cattle, sheep, and goats, night-soil, village sweepings, deciduous leaves, jungle-plants, &c.; and of these, the dung of sheep and goats is preferred as being the most powerful. Bone manure is used to a small extent in Kishangarh, but is not altogether acceptable. The practice of penning sheep and goats on the fields for a few days is common everywhere.

Among the cultivated fruits are the apricot, custard-apple, guava, mango, mulberry, orange, peach, plantain, plum, pomegranate, pummelo, tamarind, and several varieties of fig, lime, and melon. Many kinds of vegetables are grown for household use or for sale, such as artichoke, beet, cabbage, carrot, cauliflower, celery, egg-plant, onion, parsnip, potato, radish, spinach, tomato, turnip, yam, and several of the gourd and cucumber family.

Of improvement in agricultural practice there is very little to record. In a few of the States the seed is carefully selected, and cases are known of experiments with Egyptian cotton, American maize, and Turkish tobacco; but as a whole the cultivators are very conservative.

The majority of the States advance money for the construction or repairs of wells and tanks, and for the purchase of seed, bullocks, and agricultural implements. In some cases these loans are free of interest, and in others a rate varying from 6 to 12 per cent. per annum is charged. In adverse seasons *takāvi* advances are given freely throughout Rājputāna, and in 1899–1900 they amounted to more than 24 lakhs.

Except in parts of the north-east and east, where the recent famines and scarcities were less severely felt than elsewhere, the cultivators are generally in debt, and many of them are heavily involved. This state of affairs is due partly to their own extravagance and imprudence or to debts they have inherited, partly to bad seasons, and partly to the grasping methods of the *bohrā* or professional money-lender. In several States the majority of the cultivators are entirely in the hands of their *bohrās* and depend on them for everything. The rate of interest varies from 18 to 36 per cent. yearly; and the profits of the money-lender are swelled by charging compound interest, by making loans in *bājra* or *jowār* and insisting on a similar quantity of wheat in repayment, and in various other ways.

Agricultural statistics exist for the whole of one State (Bharatpur) and for portions of nine others, but they are available only for the last few years, and cannot be considered as altogether reliable. The table below is for the year 1903-4. The figures in the third column relate, for the most part, to *khālsa* lands only, i.e. those paying full revenue to the State; while the figures in the fourth column are obtained by deducting from them the areas occupied by forests, towns, villages, rivers, &c., or otherwise not available for cultivation. The differences between the figures in the last two columns represent the area cropped more than once.

State.	Total area (in square miles).	Area (in square miles).		Area (in square miles) cropped.	
		For which returns exist.	Available for cultivation.	Total.	Net.
Alwar	3,141	2,751	1,733	1,505	1,431
Bharatpur	1,982	1,982	1,598	1,492	1,278
Bīkaner	23,311	6,539	6,420	933	933
Dholpur	1,155	900	535	405	400
Jaipur	15,579	3,548	2,587	1,304	1,247
Jhālawār	810	558	400	126	116
Jodhpur	34,963	4,320	3,532	1,012	1,012
Kishangarh	858	199	153	162	153
Kotah	5,684	4,778	3,233	1,353	1,315
Tonk (in Rājputāna)	1,114	602	503	250	239
Total	88,597	26,177	20,694	8,542	8,124

Thus returns exist for 26,177 square miles, or about one-fifth of the whole; and of this area nearly four-fifths are available for cultivation. The net area cropped was 8,124 square miles, or 31 per cent. of the area for which returns exist and 40 per cent. of the area available for cultivation. Turning to individual States, the highest percentages of area cropped to that available for cultivation are found in Kishangarh, where the entire cultivable area is said to have been under crop, Alwar (82), Bharatpur (80), and Dholpur (74); and the lowest percentage in Bīkaner (between 14 and 15).

The table on the next page gives the areas under principal crops in 1903-4, and shows that, of the total cultivated area, *bājra* occupied 22 per cent., *jowār* about 16, wheat nearly 9, and gram over 7 per cent.

These tables, though incomplete and imperfectly reliable, give an approximate guide to the conditions in the remaining four-fifths of Rājputāna. Taking the States mentioned in the tables, it is doubtless the case that the rest of Jodhpur is, on the whole, less fertile and less cultivated than the 4,320 square miles for which returns exist, and that the large sandy district of Shekhāwati (in Jaipur) is, as regards pro-

ductiveness and quality of soil, far inferior to the rest of that State and more resembles Bīkaner. Yet, with these exceptions, there is reason to believe that the extent of cultivation in *jāgīr* and *muāfi* lands, held revenue free or at reduced rates, is probably much the same as in the *khālsa* area. Again, turning to the States whose names do not appear in the table, Jaisalmer is no doubt a more sterile country than even its immediate neighbours to the east and north-east, but the central and south-eastern districts of Udaipur, the greater part of Partābgarh, and the southern half of Būndi will hold their own against any tract in Rājputāna; they are extensively cultivated and yield all the valuable spring crops, including poppy.

State.	Area (in square miles) under								
	Bājra.	*Jowār.*	Wheat.	Gram.	Barley.	*Til.*	Cotton.	Maize.	Poppy.
Alwar . . .	437	168	41	72	137	37	60	25	...
Bharatpur .	314	247	76	193	106	66	68	1	...
Bīkaner . .	222	11	4	25	18	21	...	...	...
Dholpur . .	176	38	21	19	16	...	30	...	...
Jaipur . . .	271	160	114	66	207	53	93	52	4
Jhālawār . .	1	68	12	7	1	3	8	11	8
Jodhpur . .	430	151	81	18	23	66	11	8	...
Kishangarh .	17	40	5	7	25	17	11	23	...
Kotah . . .	4	381	359	197	20	68	33	41	42
Tonk (in Rājputāna) .	7	91	39	16	11	23	12	16	6
Total	1,879	1,355	752	620	564	354	326	177	60

The main wealth of the desert lands of the west and north consists in the vast herds of camels, horned cattle, and sheep which roam over the sandy wastes and thrive admirably in the dry climate.

Camels are looked on rather as members of the family than as dumb animals; they plough and harrow the ground, bring home the harvest, carry wood and water, and are both ridden and driven. Their milk is used both as an article of diet and as a medicine; a fair profit is made from the sale of their wool, and, when they die, their skin is made into jars for holding *ghī* and oil. The riding camels bred in these parts are probably superior to any others in India, and the best of them will cover from 80 to 100 miles in a night when emergency demands speed. The price varies from Rs. 150 to Rs. 300. The Jaisalmer camels are famed for their easy paces and hardiness, and can go long distances without food or water, subsisting for days on a little unrefined sugar and alum, which are carried in the saddle-bags. The best of this breed are smaller and finer in the head and neck than the ordinary camel. The camels of Jodhpur and Bīkaner are larger and stronger than those of Jaisalmer, and are often very swift.

The bullocks of Nāgaur, a district of Jodhpur, where they are chiefly bred, are famous throughout Northern India, and are sold at all the principal fairs. They are noted for their size, and their massive horns and humps; a pair sometimes fetches Rs. 300, but the average price is Rs. 150. The cows of all the sandy tracts (especially Mallāni and Sānchor in Jodhpur, and Pūgal in Bīkaner) are held in the highest esteem; they sell for Rs. 40 to Rs. 200, and give from five to ten seers of milk a day, but they require cleanliness and good food, and have to be carefully tended when away from their native pastures.

Goats and sheep are reared in large numbers in the west and north; the former supply the greater part of the animal food of the country, and their milk is in general use as an article of diet, especially in the desert. Sheep are kept principally for their wool, but are exported in large numbers; those of western Bīkaner are said to be among the largest in India, while those of Jodhpur and Jaisalmer, though small, fatten excellently, and, when well fed, yield mutton second to none.

The horses of Mallāni and Jālor (two districts of Mārwār) are renowned for their hardiness and ease of pace; they grow to a good height and, though light-boned, will carry plenty of weight and cover long distances without food or water.

In the eastern half of the country there is nothing remarkable about the live-stock, but efforts are being made by several Darbārs to improve the breed of cattle by importing bulls from Hissār and Nāgaur.

The principal fairs are held at Pushkar, in Ajmer, in October or November, and at Tilwāra, near Bālotra in Jodhpur, in March; horse and cattle fairs are also held at Alwar, Bharatpur, and Dholpur. There is an important fair at Parbatsar in Jodhpur in September, at which many bullocks change hands, and smaller cattle or camel fairs are held at several places in Bīkaner.

The chief sources of irrigation are wells, tanks or reservoirs, and canals. Statistics are available for the area dealt with in the two preceding tables, and are set forth below. Of the total area cropped in 1903–4, 1,486 square miles, or more than 17 per cent., were irrigated: namely, three-fourths from wells and one-eighth from tanks and canals. The percentages of area irrigated to total area cropped varied from 45 in Kishangarh, 38 in Dholpur, and 33 in Jaipur, to 8 in Kotah, where artificial irrigation is in many parts unnecessary, and 2 in Bīkaner, where it is more or less impracticable except in the north. In the rest of Rājputāna, excluding Jaisalmer, it is reported that from one-sixth to one-fourth of the cultivated area is usually irrigated, the higher percentages being found in Sirohi and Udaipur.

The States which are best protected by irrigation are Jaipur, Bharatpur, Kishangarh, Alwar, Kotah, and the chiefship of Shāhpura.

In Jaipur much has been done since 1868 in the construction of

tanks, reservoirs, and canals. In the *khālsa* area alone there are 200 irrigation works under the management of the Public Works department; they have cost more than 66 lakhs up to 1904, and brought in a gross revenue of nearly 59 lakhs. Bharatpur State has spent 10 lakhs since 1895, and now possesses 164 irrigation works, which are kept in good order by its Public Works department. The more important canals outside these two States are the Ghaggar canals in Bīkaner, the Pārbati canal in Kotah, and those connected with the Jaswant Sāgar near Bilāra in Jodhpur. Since the famine of 1899–1900 increased attention has been paid in almost every State to the subject of irrigation. In accordance with the recommendations of the Irrigation Commission of 1901–3, investigations have been undertaken in the greater part of Rājputāna at the expense of the Government of India and under the supervision of British engineers, with the object of drawing up projects for utilizing to the best advantage all available sources of water-supply.

State.	Area (in square miles) irrigated from				Total area (in square miles) irrigated.
	Canals.	Tanks.	Wells.	Other sources.	
Alwar	...	36	168	8	212
Bharatpur	7	...	189	98	294
Bīkaner	16	...	...	4	20
Dholpur	...	8	140	6	154
Jaipur	45	20	342	29	436
Jhālawār	...	1	17	...	18
Jodhpur	8	4	111	27	150
Kishangarh	...	30	38	5	73
Kotah	11	3	87	3	104
Tonk (in Rājputāna)	...	1	23	1	25
Total	87	103	1,115	181	1,486

Wells are the mainstay of the eastern half of the country, as also of Sirohi and parts of Jodhpur. Their number is roughly estimated at 300,000; and they are, almost without exception, the property of individual cultivators, the Darbārs merely encouraging their construction by a system of agricultural advances known as *takāvi*, or by liberal rules in the matter of land revenue assessment. The cost varies from a few rupees for a temporary well, to about Rs. 1,500 for a deep and permanent structure. Except in Sirohi and parts of Jodhpur, Kotah, and Udaipur, where the Persian wheel is used, the water is lifted by means of leathern buckets drawn up with a rope and pulley by bullocks moving down an inclined plane. In the case of shallow wells, a contrivance known as *dhenklī* is everywhere popular. It is similar to the *shadoof* employed in Egypt, and consists of a stout rod, balanced on a vertical post, with a heavy weight at one end and a leathern

bucket or earthen pot suspended by a rope to the other. The worker dips the bucket or pot into the water, and, aided by the counterpoising weight, empties it into a hole from which a channel conducts the water to the lands to be irrigated. Water is sometimes lifted from streams in the same way.

Rent, wages, and prices.

Wages vary greatly according to locality, but have increased everywhere during the last twenty years. The landless day labourer now receives from two to four annas daily, instead of from one to two annas in former times, while the monthly wage of domestic servants has risen 20 or 25 per cent. As regards agricultural labour, the system of payment in kind is common; and the village artisans and servants, such as carpenters, potters, blacksmiths, workers in leather, and barbers, are almost always remunerated in this way. In some States the cultivators employ labourers for a particular harvest, and give them two or three rupees a month in addition to food and clothes, or a share of the produce; and in such cases these helps are usually of the same caste as their employers, so that they may eat together and thus economize food. The wages of skilled labour have, as elsewhere, risen considerably in consequence of the extension of railways and industries, and the general rise in prices.

The table below shows the average price of the staple food-grains (and of salt) in seers per rupee during the twenty-eight years ending 1900, excluding years of acute famine. The figures opposite the eastern division represent the average prices in the Alwar, Bharatpur, Dholpur, Jaipur, Karauli, and Udaipur States, while those opposite the western division relate to Bīkaner, Jaisalmer, and Jodhpur.

Natural divisions.	Selected staples.															Salt.		
	Wheat.			Barley.			*Jowār.*			*Bājra.*			Maize.					
	Years.			Years.			Years.			Years.			Years.			Years.		
	1873-80.	1881-90.	1891-1900.	1873-80.	1881-90.	1891-1900.	1873-80.	1881-90.	1891-1900.	1873-80.	1881-90.	1891-1900.	1873-80.	1881-90.	1891-1900.	1873-80.	1881-90.	1891-1900.
Eastern	15	16	14	22	23	21	21	22	21	19	19	18	20	23	21	22	12	11
Western	13	13	11	20	21	18	19	19	16	17	17	14	...	17	16	45	15	15
Rājputāna	14	15	12	21	22	20	21	21	20	18	19	17	...	20	19	28	13	12

It will be seen that the prices of all grains have risen since 1890, and this was due to a series of indifferent seasons. The importance of railways as levellers of prices cannot be overestimated; in the famine of 1868-9, when there was no railway, grain sold for less than 4 seers

per rupee, whereas in the recent famine of 1899–1900 prices were never higher than 7 or 8 seers.

The material condition of the urban population is generally satisfactory, and the standard of living is considerably higher than it was thirty or forty years ago. The middle-class clerk has sufficient income to dress well, diet himself liberally, and give his sons an English education; his house is comfortably, if simply, furnished, and he can generally afford to keep a personal servant. In rural areas, on the other hand, there has been little change in the style of living, and in some States there has been a perceptible falling off owing to recent adverse seasons. It is only by the exercise of thrift and frugality that the people can hold their own. The cultivators, as a whole, are indifferently housed and poorly clad, and their food, if sufficient, consists usually of inferior grains. The condition of the ordinary labourer shows some improvement, in consequence of the increase in wages and the extension of public works.

Forests.

There are no large timber forests in Rājputāna, but the woodlands are extensive upon the south-western Arāvallis and throughout the hilly tracts adjoining, where the rainfall is good. Mount Abu is well wooded from summit to skirts and possesses several valuable kinds of timber; and from Abu north-eastward the western slopes of the range are still well clothed with trees and bushes up to the neighbourhood of Merwāra. Below the hills on this western side runs a belt of jungle, sometimes spreading out along the river beds for some distance into the plain. All vegetation, however, rapidly decreases in the direction of the Lūni; and beyond that river, Mārwār, Bīkaner, and Jaisalmer have scarcely any trees at all, except a few plantations close to villages or towns. In the west and south of Mewār the forests stretch for miles, covering the hills with scrub jungle and the valleys with thickets; while the southernmost States of Bānswāra, Dūngarpur, and Partābgarh are, in proportion to their size, the best wooded of any in Rājputāna. Here teak and other valuable timber trees would thrive well if the jungles were not periodically ruined by the Bhīls, who burn them down for the purposes of sport or agriculture almost unchecked. In Būndi and Kotah, and in parts of Jaipur, Alwar, and Karauli, the woodlands are considerable, but they contain very little valuable timber. Elsewhere in Rājputāna there are only fuel and fodder reserves.

The principal trees found in the forest are *dhāk* (*Butea frondosa*), *dhāman* (*Grewia pilosa*), *dhao* (*Anogeissus pendula*), *gol* (*Odina Wodier*), *jāmun* (*Eugenia Jambolana*), *karayia* (*Sterculia urens*), *sālar* (*Boswellia thurifera*), *semal* (*Bombax malabaricum*), *tendū* (*Diospyros tomentosa*), and *ūm* (*Saccopetalum tomentosum*). Teak is found sparingly and seldom attains any size; the mango, *mahuā* (*Bassia latifolia*), and the

small bamboo are common. The minor forest produce consists of grass, firewood, bamboos, fruits, honey, lac, gum, &c.

In some States right-holders get forest produce free or at reduced rates; and in years of scarcity the forests are usually thrown open to the people for grazing, grass-cutting, and the collection of fruits, tubers, &c.

The area under the management of the Forest departments of the various States cannot be given. Indeed, in many of the States there is no real Forest department, the staff being chiefly engaged in guarding game-preserves or providing forage and fuel for *Rāj* establishments; but in Alwar, Jaipur, Jodhpur, Kotah, and Sirohi the forest area amounts to about 2,800 square miles, and efforts are made to work the forests on proper lines. The forest revenue in these five States, excluding the value of grass, wood, &c., taken free by right-holders or supplied for the requirements of the Darbār, is about 2·5 lakhs, and the expenditure nearly 1·5 lakhs.

Mines and minerals.

The most important mineral now being worked is coal at Palāna in Bīkaner. It is of Tertiary age, and was discovered in 1896 in association with Nummulitic rocks. Mining operations were started in 1898, and the colliery was connected with the Jodhpur-Bīkaner Railway by a branch line, ten miles long, in the following year. The output has risen from about 500 tons in 1898 to over 44,000 tons in 1904. The coal is of inferior quality, but when mixed with the Bengal variety is found satisfactory, and is largely used on the Jodhpur-Bīkaner Railway and by the Public Works department of the State; attempts are being made to manufacture briquettes. The colliery gives employment to about 100 labourers.

What Colonel Tod called the tin mines of Mewār, once very productive and yielding no inconsiderable portion of silver, are probably the lead and zinc mines of the village of Jāwar, 16 miles south of Udaipur city. They are said to have been worked till 1812, when, in consequence of a famine, the village was depopulated. Prospecting operations, undertaken in 1872, showed but a very small proportion of silver in two specimens of galena, namely, about 10½ ounces to a ton of lead; and the mines have since been untouched. There are old lead-workings in the Thāna Ghāzi district of Alwar, and the remains of zinc furnaces at Sojat in Jodhpur.

Copper is found in several States, and was formerly smelted in considerable quantities. The most important mines are at KHETRI and SINGHĀNA in Jaipur, and they must have produced copper for a long period. Some of the hills are honeycombed with old excavations; and the heaps of slag from the furnaces have accumulated, in the course of time, until they now form a range of hillocks several

hundred feet in length, and from 30 to 60 feet high. The ores are copper pyrites, and some carbonates also occur; considerable quantities of blue vitriol (copper sulphate), alum, and copperas (iron sulphate) were formerly manufactured from decomposed slates and refuse. At Darība, the chief mine in Alwar, the ores are also copper pyrites, but are mixed with arsenical iron, and occur irregularly disseminated through the black slates, only a few specks and stains being seen in the quartzites. Here, as elsewhere, the industry is diminishing owing to the importation of copper from Europe, and the mine is practically abandoned.

Iron ores are pretty generally distributed throughout the country, but the most noteworthy deposits are found in Jaipur, Alwar, and Udaipur. In the first of these States, the mines at Karwar have long been abandoned, in consequence, it is said, of the scarcity of fuel; but in the south-west of Alwar, the eastern half of Udaipur, and in parts of Kotah, the ores are worked on a small scale to supply native furnaces.

Cobalt has long been known as occurring in the mines near KHETRI, in association with nickel and copper ores. It has been compared to a fine grey sand having the appearance of iron filings, and is found in minute crystals belonging to the isometric system, mixed with copper and iron pyrites. Under the name of *sehta*, it is exported to Jaipur, Delhi, and other places, and is used by Indian jewellers for producing a blue enamel.

The rocks of Rājputāna are rich in good building materials. The ordinary quartzite of the Arāvallis is well adapted for many purposes; the more schistose beds are employed as flagstones or for roofing, and slates are found in the Alwar and Būndi hills.

Limestone is abundant in several parts, and is used both for building and for burning into lime. Two local forms of it stand pre-eminent among the ornamental stones of India for their beauty: namely, the Raiālo group, quarried at Raiālo (Raiāla) in Jaipur, at Jhīri in Alwar, and at MAKRĀNA in Jodhpur; and the Jaisalmer limestone. The former is a fine-grained crystalline marble, the best being pure white in colour, while others are grey, pink, or variegated. The famous Tāj at Agra was built mainly of white Makrāna marble, and it is proposed to use the same stone in the construction of the Victoria Memorial Hall at Calcutta. The Jaisalmer variety is of far later geological age; it is even-grained, compact, of a buff or light brown colour, and is admirably adapted for fine carving. It takes a fair polish, and was at one time used for lithographic blocks.

Sandstone is plentiful almost everywhere, varying greatly in texture and colour. The most famous quarries are at Bansi Pahārpur in Bharatpur State; they have furnished materials for the most celebrated

monuments of the Mughal dynasty at Agra, Delhi, and Fatehpur Sīkri, as well as for the beautiful palaces at Dīg. There are two varieties of this stone: namely, a very fine-grained yellowish white; and a dark red, speckled with yellow or white spots. The quarries give employment to 450 labourers, and the out-turn is about 14,000 tons a year. Excellent red sandstone comes from Dalmera in Bīkaner, from Dholpur, and from several places in Jodhpur, where also the brown, pink, and yellow varieties are found.

Beds of unctuous clay or fuller's earth are found in parts of Bīkaner and the two western States from 5 to 8 feet below the surface; the clay is used locally as a hair-wash or for dyeing cloth, and is exported in considerable quantities to Sind and the Punjab under the name of *multāni mitti*.

Large deposits of gypsum occur in the vicinity of Nāgaur and at other places in Jodhpur; the mineral is used as cement for the interiors of houses, and the yearly output is about 5,000 tons.

Of pigments, a black mineral paint, discovered in Kishangarh in 1886, has been successfully tried on the Rājputāna-Mālwā and Jodhpur-Bīkaner Railways, and on steamers.

The only precious or semi-precious stones at present worked are the garnets, which occur in the mica schists of the Rājmahāl hills in Jaipur, near Sarwār in Kishangarh, and to a less extent in the Bhīlwāra district of Udaipur. Beryl was once worked on a large scale near Toda Rai Singh in Jaipur, and turquoises are said to have been found in the same locality. Rock-crystal is occasionally met with, but of no marketable value.

The salt sources of Rājputāna are celebrated. Under agreements entered into with the various Darbārs in, or soon after, 1879, the local manufacture of salt has ceased in every State except Bīkaner, Jaisalmer, Jodhpur, and Kotah. In the first two States, a small amount, limited to about 360 tons in Bīkaner and 180 in Jaisalmer, is manufactured at Lūnkaransar (Bīkaner) and Kānod (Jaisalmer); but the salt is of inferior quality. Similarly, the Jodhpur and Kotah Darbārs are permitted to manufacture small quantities of *khāri* or earth-salt for industrial purposes. With these exceptions, the manufacture is entirely in the hands of the Government of India; and the chief salt sources are the SĀMBHAR LAKE, leased by the Jaipur and Jodhpur States in 1869–70, the depressions at DĪDWĀNA, PACHBHADRĀ, Phalodi, and the Lūni tract, leased by Jodhpur in 1879, and the lake at Kachor Rewassa, leased by Jaipur in 1879. The only sources now worked are the first three mentioned immediately above, and they are under the charge of the Northern India Salt Revenue department. During the five years ending 1903, the yearly out-turn averaged about 164,000 tons, worth about 9 lakhs; during the same period the yearly sales

have averaged nearly 170,000 tons, and the annual net revenue has been more than 111 lakhs (say, £743,000).

In manufactures Rājputāna has no speciality, unless the making of salt be included under this head. The more important industries are the weaving of muslin, the dyeing and stamping of cotton cloths, the manufacture of carpets, rugs, and other woollen fabrics, enamelling, pottery, and work in ivory, lac, brass, steel, stone, &c.

Arts and manufactures.

The weaving of coarse cotton cloths for local use is carried on in almost every village, and cotton rugs (*darīs*) are made in a few places. Among muslins the foremost place is held by those of Kotah, where the charming art of dyeing the thinnest net with a different colour on each surface is still sometimes practised. The dyeing and stamping of cotton cloths is carried on largely in several States, particularly at Sanganer in Jaipur. The chintzes are printed in colours by hand blocks, but the industry is decaying owing to machine competition. The patterns on dark green and light yellow cloths are frequently stamped with gold or silver leaf. Tie-dyeing (called *chūndri bandish*) is practised chiefly in Jaipur and Kotah. The process consists of knotting up with thread any portion of the cloth which is to escape being dyed. For each of the many colours required to produce an elaborate design, a separate knotting is required, and, though the labour involved is great, the rapidity with which the work is done is marvellous.

Fine wool is obtained from Bīkaner, Jodhpur, and Shekhāwati, and is much prized for carpet-weaving. The principal woollen manufactures are carpets, rugs, shawls, and blankets, especially famous in Bīkaner. Felt rugs, saddle-cloths, capes, &c., are made at Mālpura in Jaipur, and at several places in Jodhpur and Tonk.

For enamelling on gold, Jaipur is acknowledged to be pre-eminent, and some work is done on silver and copper. The enamel is of the kind termed '*champlevé*,' i.e. the outline is formed by the plate itself, while the colours are placed in depressions hollowed out of the metal. The red colour is the most difficult to apply, and for this hue Jaipur is famous. The quasi-enamelling of Partābgarh, where the article itself is of glass, is also interesting.

The best pottery is produced in Jaipur, and is practically the same as that for which Delhi has long been noted. The vessels are formed in moulds and, after union of the separate parts, are coated with powdered white felspar mixed with starch, and are then painted. The ware is next dipped in a transparent glaze of glass, and when dry goes to the kiln, where only one baking is required. At Indargarh in Kotah painted pottery is made, the colour being applied after the pottery has been fired.

Ivory-turning is carried on to a small extent in Alwar, Bīkaner, Jodhpur, and Udaipur, the articles manufactured being mostly bangles, chessmen, &c. At Etāwah (in Kotah) boxes and powder-flasks are veneered with horn, ivory, and mother-of-pearl set in lac; while fly-whisks and fans made of ivory or sandal-wood are curiosities produced at Bharatpur. The fibres are beautifully interwoven and, in good specimens, are almost as fine as ordinary horsehair.

Work in lac is practically confined to such small articles as toys, bangles, and stools, and is carried on in most of the States. In Bīkaner lac, or some similar varnish, is applied to skin oil-flasks (*kūppīs*), and in Shāhpura lac is used in the ornamentation of shields and tables.

Brass and copper utensils of daily use are manufactured everywhere. The brass-work of Jaipur, which is especially artistic, takes the form of tea-tables, salvers, Ganges water-pots, and miniature reproductions of bullocks, camels, carts, deer, elephants, &c.

Sword-blades, daggers, knives, &c., are manufactured in Jhālawār, Sirohi, and Udaipur, and, in the second of these States, are often inlaid with gold or silver wire.

The carving of small articles and models in stone is practised chiefly in Alwar, Bharatpur, Jaipur, Jaisalmer, and Jodhpur. Among other industries may be mentioned the manufacture of ornamental saddlery and camel-trappings, leathern jars for *ghī* and oil, and silver table-ornaments.

There is only one spinning and weaving mill in Rājputāna, at Kishangarh. It was opened in 1897 and now employs about 500 hands daily; there are over 10,000 spindles, and the out-turn in 1904 exceeded 685 tons of yarn. Of cotton-presses there are sixteen, half of which belong to private individuals. Jaipur owns three, Kishangarh two, and Udaipur, Būndi, and Shāhpura own one each. These eight presses employ from 700 to 1,200 hands daily during the working season, and in 1903–4 about 32,000 bales (of 400 lb. each) were pressed.

Commerce and trade.

Of the trade of Rājputāna in olden days very little is known. The principal marts were Bhīlwāra in Udaipur, Churu and Rājgarh in Bīkaner, Mālpura in Jaipur, and Pāli in Jodhpur; and they formed the connecting link between the sea-coast and Northern India. The productions of India, Kashmīr, and China were exchanged for those of Europe, Africa, Persia, and Arabia. Caravans from the ports of Cutch and Gujarāt brought ivory, rhinoceros' hides, copper, dates, gum arabic, borax, coco-nuts, broadcloths, sandal-wood, drugs, dyes, spices, coffee, &c., and took away chintzes, dried fruits, sugar, opium, silks, muslins, shawls, dyed blankets, arms, and salt. The guardians of the merchandise

were almost invariably Chārans, and the most desperate outlaw seldom dared commit any outrage on caravans under the safeguard of these men, the bards of the Rājputs. If not strong enough to defend their convoy with sword and shield, they would threaten to kill themselves, and would proceed by degrees from a mere gash in the flesh to a death-wound; or if one victim was insufficient, a number of women and children would be sacrificed and the marauders declared responsible for their blood. The chief exports of local production were salt, wool, *ghī*, animals, opium, and dyed cloths, while the imports included wheat, rice, sugar, fruits, silks, iron, tobacco, &c. The through trade was considerable, but was hampered by the system of levying transit and other dues, known as *rahdāri*, *māpa*, *dalāli*, *chūngi*, &c. At the present time, except in four or five of the less important States, transit duties have either been abolished altogether, or are levied only on opium, spirits, or intoxicating drugs; but import and export duties are still in force in most of the States.

The chief exports now are salt, wool and woollen fabrics, raw cotton, oilseeds, opium, *ghī*, marble and sandstone, hides, printed cloths, camels, cattle, sheep and goats; and the main imports include food-grains, English and Indian cotton goods, sugar, tobacco, metals, timber, and kerosene oil. The bulk of the trade is carried by rail, but no complete statistics are available.

The principal trade centres are the capitals of the various States, and also the towns of Bāran, Bhīlwāra, Churu, Dīg, Jhunjhunu, Merta, Nāgaur, Pāli, Sāmbhar, and Sīkar. The head-quarters of banking and exchange operations may be said to be Jaipur, the largest and richest city of Rājputāna, though the principal firms of Mālwā and of the northern cities of British India have agencies in most of the towns. The employment of capital is, however, becoming less productive since the peculiar sources of profit formerly open have been disappearing. At the beginning of the nineteenth century large commercial speculations had more the character of military enterprises than of industrial ventures, when the great banking firms remitted goods or specie under armed bands in their own pay, and when loans were made at heavy interest for the payment of armies or the maintenance of a government. Now, railways and telegraphs are gradually levelling profits on exchange and transport of goods, while the greater prosperity and stability of the States, under the wing of the Empire, render them more and more independent of the financing bankers.

The total length of railways in Rājputāna, including the British District of Ajmer-Merwāra, has increased from 652 miles in 1881, 943 in 1891, and 1,359 in 1901, to 1,576 miles in 1906. Of the miles now open, 739 are the property of the British Government, and the rest are owned by various Native States;

Communications.

and, with the exception of 48 miles, the entire length is on the metre-gauge system.

The oldest and most important line, the Rājputāna-Mālwā, belongs to Government, and has a total length in Rājputāna of about 720 miles. Starting from Ahmadābād, it enters the country near Abu Road in the south-west, and runs north-east to Bāndikui, whence one branch goes to Agra and another to Delhi. It also has branches from Ajmer south to Nīmach and from Phalera north-east to Rewāri. With the exception of the chord last mentioned, which is a recent extension, the line was constructed between 1874 and 1881; it has been worked on behalf of Government by the Bombay, Baroda, and Central India Railway Company since 1885, and the lease has just been renewed.

The only other Government line in the Province is the Indian Midland section of the Great Indian Peninsula Railway, which runs for about 19 miles through the Dholpur State between Agra and Gwalior; it is on the broad gauge, and was opened for traffic in 1878.

Of lines owned by Native States, by far the most important is the Jodhpur-Bīkaner Railway, the property of these two Darbārs, and worked by a special staff employed by them. Its length in Rājputāna is 700 miles, 455 belonging to Jodhpur and 245 to Bīkaner; and 124 additional miles, situated in British territory, are under the same management. The line starts from Mārwār junction on the Rājputāna-Mālwā system, and runs north-west for 44 miles till it reaches the Lūni river, whence there are two branches, one almost due west to Hyderābād (Sind), where it meets the North-Western Railway, and the other generally north-by-north-east past Jodhpur, Merta Road, and Bīkaner to Bhatinda in the Punjab. From Merta Road another branch runs east, joining the Rājputāna-Mālwā line at Kuchāwan Road, not far from the Sāmbhar Lake. The Jodhpur-Bīkaner Railway has been constructed gradually between 1881 and 1902, and the total capital outlay of the two States to the end of 1904 was about 173 lakhs; in the year last mentioned the net receipts exceeded 13½ lakhs, thus yielding a return of nearly 8 per cent. on the capital outlay.

The remaining lines are the Udaipur-Chitor, a portion of the Bīna-Gūna-Bāran, and the Jaipur-Sawai Mādhopur Railways. Of these, the first connects the towns after which it is named, is 67 miles in length, and is the property of the Udaipur Darbār, by which it was constructed between 1895 and 1899, and by which it has been worked since 1898. The capital expenditure up to the end of 1904 was nearly 21 lakhs, and the net profits average about 5 per cent.

In the south-east corner of the Province, the Kotah Darbār owns the last 29 miles of the Bīna-Gūna-Bāran (broad gauge) line, which was opened for traffic in 1899, and has since been worked by the Great Indian Peninsula Railway. The section within Kotah territory has

cost more than 17 lakhs, but the net profits average only about $1\frac{1}{2}$ per cent. The line also runs for 22 miles through the Chhabra district of Tonk, but this portion is now owned by the Gwalior State.

A metre-gauge line is now being constructed by the Jaipur Darbār between its capital and Sawai Mādhopur, a distance of 73 miles. The first 40 miles as far as Nawai have recently been opened for traffic.

Another line which is under construction and should greatly benefit the south-eastern States is that between Nāgda in Gwalior and Muttra.

It would be difficult to overestimate the benefits which the railway has conferred on the inhabitants, particularly during periods of famine. Without it, thousands of persons and cattle would have died in 1899–1900. It has had the effect of levelling and steadying prices, and preventing local distress from disorganizing rural economy, and has brought about the general advancement of material prosperity by stimulating the cultivation of marketable produce. As for the influence which railways have exercised on the habits of the people, it may be said that they have a tendency to relax slightly the observance of caste restrictions, and to introduce a good deal of Hindustānī and a sprinkling of English words into everyday use.

The total length of metalled roads is about 1,190 miles, and of unmetalled roads 2,360 miles; of these, 250 miles are maintained by the British Government, and the rest by the various States and chiefships. The use of roads for through communication has declined since the introduction of the railway. The first great road constructed in the country was that between Agra and Deesa, running for about 360 miles through the States of Bharatpur, Jaipur, Kishangarh, Jodhpur, and Sirohi. It was constructed between 1865 and 1875, partly at the cost of the States concerned, and partly from Imperial funds, and, except for the last 28 miles, was metalled throughout; but it has now been superseded by the railway, and is kept up merely as a fair-weather communication. Another important road built about the same time was that connecting Nasīrābād and Nīmach; but the Rājputāna-Mālwā Railway now runs close to and parallel with it, and it is rarely used. The chief metalled roads at present maintained by Government are those between Nasīrābād and Deoli, passing through parts of Jaipur and Kishangarh, and between Mount Abu and Abu Road in Sirohi. The States with the greatest lengths of metalled roads are Jaipur (292 miles), Bharatpur (165 miles), Kotah (143 miles), and Udaipur (142 miles).

The country carts vary greatly in size, but all are of old-fashioned type. In some cases the bottom of the cart is level, while in others it is curved, the back part being nearer to the ground in order to facilitate unloading. The wheels are seldom tired. In some of the

towns *ekkas* and tongas are used for the conveyance of passengers, and the upper classes occasionally keep bullock-carriages called *raths* or *bailis*. In the desert tracts the people travel on camels.

With the exception of Dholpur, which is included for postal purposes in the Postmaster-Generalship of the United Provinces, and certain States which have postal arrangements of their own, the Province forms a circle in the charge of a Deputy-Postmaster-General. The following statistics show the advance in business in Rājputāna since 1880–1. The statement includes figures for Dholpur except when it is otherwise stated, but not those of Darbār post offices in States which have their own postal arrangements :—

	1880–1.	1890–1.	1900–1.	1902–3.
Number of post offices	*85	225	305	343
Number of letter boxes	*44	*131	227	249
Number of miles of postal communication	*2,072	*3,661	4,797	5,311
Total number of postal articles delivered :—				
Letters	*3,067,096	4,670,784	5,656,474	6,044,490
Postcards	*172,394	2,099,360	4,850,693	5,797,338
Packets	*31,911	134,239	†251,195	†330,657
Newspapers	*16,078	346,088	‡275,900	‡403,111
Parcels	*42,522	56,599	84,523	97,741
Value of stamps sold to the public . . Rs.	*78,909	*2,17,594	2,28,818	2,09,922
Value of money-orders issued . . . Rs.	*12,45,500	*35,60,710	66,23,911	50,54,753
Total amount of savings bank deposits . Rs.	...	*7,54,308	10,13,299	12,24,583

* These figures exclude statistics for Dholpur which are included in the figures for the United Provinces. † Includes unregistered newspapers.
‡ Registered as newspapers in the Post Office.

The States which, besides possessing British post offices, have a local postal system of their own are Būndi, Dholpur, Dūngarpur, Jaipur, Kishangarh, Shāhpura, and Udaipur. The primary object of this local service is the transmission of official correspondence; but the public are usually permitted to send letters either on payment of a small fee, or, in Būndi, Jaipur, and Kishangarh, by affixing the necessary local postage-stamp.

Famine.

Rājputāna has been subject to famine from the earliest times of which we have any tradition. Colonel Tod called it the grand natural disease of the western regions, and a Mārwārī proverb tells us to expect one lean year in three, one famine year in eight.

The cause of scarcity or famine is the failure of the south-western monsoon; adverse weather conditions, such as hail and frost, or visitations of locusts, have frequently done much damage, but they seldom

cause more than a partial failure of crops, and this failure is usually confined to certain districts.

Famines may be classified thus according to their intensity: *ankāl* (grain famine); *jalkāl* (scarcity of water); *trinkāl* (fodder famine); and *trikāl* (scarcity of grain, water, and fodder). The tracts most liable to famine are the desert regions of Bīkaner, Jaisalmer, and Jodhpur, situated outside the regular course of both the south-western and north-eastern monsoons. Here there are no forests and no perennial rivers; the depth of water from the surface exceeds the practical limit of well-irrigation; and the rainfall is scanty, irregular, and at times so fitful that the village folk say that one horn of the cow lies within, and the other without, the rainy zone. The best-protected States are found along the eastern frontier from Alwar in the north to Jhālawār in the south; the rainfall here is good and fairly regular, and facilities for artificial irrigation are abundant.

From the point of view of famine the *kharīf* is the more important harvest, as the people depend on it for their food supply and fodder. The money value of the *rabi* or spring harvest is, however, generally greater than that of the *kharīf*; and hence it is often said that the people look to the autumn crop for their food supply, and to the spring crop to pay their revenue and the village money-lender, on whom they usually depend for everything. A late, or even a deficient, rainfall would not necessarily entail distress, though the yield of the *kharīf* would probably be below the average; it might be followed by an abundant *rabi*. On the other hand, absolute failure of rain between June and November would not only mean no autumn crops, but certain loss to the spring harvest as well.

When the rains fail, the regular danger signals of distress are a rise in prices, and a contraction of charity and credit, indicated respectively by the influx of paupers into towns and an enhancement of the rate of interest. Other symptoms are a feverish activity in the grain trade, an increase in petty crime, and an unusual stream of emigration of the people accompanied by their flocks and herds in search of pasturage.

Of the famines which occurred prior to 1812 there is hardly any record save tradition. Colonel Tod mentions one in the eleventh century as having lasted for twelve years; and the Mewār chronicles contain an eloquent account of the visitation of 1661–2, when the construction of the dam of the Rāj Samand lake at KANKROLI, the oldest known famine relief work in the country, was commenced. We are told that July, August, and September passed without a drop of rain; 'the world was in despair, and people went mad with hunger. Things unknown as food were eaten. The husband abandoned the wife, the wife the husband—parents sold their children—time increased the evil; it spread far and wide: even the insects died, they had nothing to feed

on. Those who procured food to-day ate twice what nature required. . . . The ministers of religion forgot their duties; there was no longer distinction of caste, and the Sūdra and Brāhman were undistinguishable. . . . All was lost in hunger; fruits, flowers, every vegetable thing, even trees were stripped of their bark, to appease the cravings of hunger: nay, man ate man!' The years 1746, 1755, 1783–5, and 1803–4 are all mentioned as periods of scarcity, but no details are available. In 1804, however, Kotah escaped, and the regent Zālim Singh was able to fill the State coffers by selling grain to the rest of the country at about 8 seers per rupee.

The famine of 1812–3 is described as rivalling that of 1661 in the havoc it caused; the crops failed completely and the price of grain is said to have risen to 3 seers per rupee. The mortality among human beings was appalling, and in certain States three-fourths of the cattle perished.

For the next fifty-five years there was no general famine in Rājputāna; but there were periods of recurring scarcity in parts, notably in the south and west in 1833–4 and 1848–9, in the north and east in 1837–8, and in the east, particularly in Alwar, in 1860–1.

The main stress of the calamity of 1868–9 was felt in the northern, central, and western tracts, excluding Jaisalmer, which is said to have occupied the extreme western limit of the famine area; but every State was more or less affected. The rains of 1868 came late, fell lightly, and practically stopped in August; the result was a triple famine (*trikāl*). The people emigrated in enormous numbers with their flocks and herds, but as most of the surrounding Provinces were themselves in distress, the emigrants became aimless wanderers and died in thousands. Subsequently, cholera broke out and found an easy prey in the half-starved lower classes. The area cultivated for the *rabi* was only half of the normal, and the heavy prolonged winter rains prevented more than half of the crops sown from reaching maturity. Large numbers of people returned to their villages in May, 1869, in the belief that the rains would be early, but the monsoon did not break till the middle of July, and in the interval thousands died. Owing to want of cattle, the land was sown with extreme difficulty, and the ploughing was done to a considerable extent by men and women. The autumn harvest, however, promised well, and the crops were developing satisfactorily, when locusts appeared in unprecedented numbers and, where the country was sandy, ate up everything. To crown all, the heavy rains of September and October were followed by a virulent outbreak of fever and, in the end, the autumn crop was but one-eighth of the normal. There are no materials for estimating either the total cost of this famine or the numbers who were relieved. The Mahārānā of Udaipur is said to have spent about five lakhs in direct relief; the expenditure in Jaipur appears

to have been nearly as great, and others mentioned as conspicuous for their charities or liberal policy were the chiefs of Jhālawār, Kishangarh, and Sirohi. Some idea of the scarcity of forage may be gathered from the fact that in Mārwār wheat was at one time being sold at 6, and grass at $5\frac{1}{2}$ seers per rupee, while in Hāraoti the prices of grain and grass were the same, weight for weight. This dearth of fodder, coupled with the scarcity of water, caused heavy mortality among the live-stock, and it was estimated that 75 per cent. of the cattle died or were sold out of the country. Grain was imported by camels from Sind and Gujarāt, and by carts along the Agra-Ajmer road. The latter communication had just been completed, but there was no railway line nearer than Agra on the east and Ahmadābād to the south. As the Governor-General's Agent wrote at the time, had not the East Indian and Bombay, Baroda, and Central India Railways been in working order, grain would not have been procurable for money, and central Rājputāna would have been abandoned to the vultures and the wolves. Even as it was, the mortality was terrible; it was estimated that both Bīkaner and Jodhpur lost one-third of their population, and generally throughout the country the people died by thousands and lay unburied by the waysides.

In 1877 the rains were very late, and there was considerable distress in Alwar, Bharatpur, and Dholpur. The autumn crop failed almost completely; there was great scarcity of fodder, and more than 200,000 persons emigrated. Alwar is said to have lost by deaths and emigration one-tenth of its population, and Dholpur 25,000 persons. Relief measures were started late and were on the whole inadequate. Advances were given to the extent of about a lakh, but the expenditure on relief works is only available for Alwar, namely Rs. 31,000. In this year also there was a severe grass famine in Jaipur and Jodhpur, which caused heavy mortality among the cattle.

The year 1891–2 was one of severe scarcity in Bīkaner, Jaisalmer, Jodhpur, and Kishangarh, and is noticeable as having been the first occasion on which the provisions of the Famine Code for Native States were carried out in practice. The maximum number on relief works on any one day was never very large (about 15,000), owing to emigration, the self-reliance of the people, the comparatively liberal exercise of private charity, and the peculiar relations obtaining between the cultivators and the village bankers. Fodder was at famine prices and often not available, but, owing to imports by railway, food-grains were plentiful, selling at less than 20 per cent. above normal rates. The four States above mentioned spent between them about 3 lakhs on relief works, and Rs. 44,000 on gratuitous relief. Advances to cultivators amounted to about Rs. 34,000, revenue was suspended to the extent of more than 2 lakhs, and remitted in the case of $5\frac{3}{4}$ lakhs more.

A weak monsoon in 1895 caused some distress in the north and west and a great dearth of fodder in Alwar. In the following year the rainfall was either deficient or unevenly distributed, and there was famine in Bīkaner and Dholpur, and scarcity in Bharatpur, Jaisalmer, Jodhpur, and Tonk. The total direct expenditure on relief in these six States exceeded 9 lakhs, and there were large remissions and suspensions of land revenue.

An indifferent season in 1898 was followed by the great famine of 1899. The monsoon failed everywhere; the rains crops were entirely lost over all but a very limited area in the east and south-east, and there was no grass except along the base of the Arāvallis and in the hilly tracts in the south. The early withdrawal of the monsoon currents had an equally disastrous effect on the *rabi* sowings; the area commanded by artificial irrigation had shrunk to a fraction of the normal, as the tanks were dry and the wells had largely failed. The situation was intensified by the natural check put upon emigration by a failure of crops and fodder in most of the neighbouring territories, which tradition had taught the hardy desert cultivators to look upon as an unfailing refuge in times of trouble. Thousands emigrated at the first sign of drought, but many returned hopeless and helpless as early as October, and their reports went far to deter others from joining in the great trek. Relief measures were started on a scale never before attempted in Rājputāna, and were continued till October, 1900. The high-water mark was reached in June, 1900, when there were more than 53,000 persons in receipt of relief of one kind or another. Altogether about 146 million units[1] were relieved at a cost of nearly 104 lakhs; in addition, a sum of 24 lakhs was received from the Indian Famine Charitable Relief Fund, and the greater part of it was spent in providing additional comforts, maintaining orphans, establishing dépôts for the relief of returning emigrants, and generally in giving the people a fresh start in life. Loans and advances amounted to more than 24 lakhs, revenue was remitted to the extent of 28 lakhs, and suspended in the case of 48 lakhs. There was also much private charity by missionaries and other benevolent persons or bodies, the amount of which it is impossible to estimate even approximately. The Government of India assisted the Darbārs with loans of nearly 63½ lakhs, and placed at their disposal the services of engineers with experience in irrigation works, and officers of the Indian Army to assist in supervising the administration of relief. An epidemic of cholera between April and June, 1900, caused terrible loss of life, and the Bhīls of the southern States are known to have died in large numbers from this disease and from starvation. The difficulty of saving these aboriginal people in spite of themselves was enormous. While ready to accept

[1] A unit means one person relieved for one day.

any gratuitous relief offered in money or food, they had an almost invincible repugnance to earning a day's wage on the famine works. The last four months of 1900 were marked by an exceedingly virulent outbreak of fever, which is said to have caused more deaths than want of food in the period during which famine conditions prevailed. To this famine of 1899–1900, and to the epidemics of cholera and malarial fever which respectively accompanied and followed it, must be ascribed almost entirely the large decrease in population since the Census of 1891. This famine is also remarkable for having brought to notice the great advance made by the chiefs of Rājputāna generally in recognizing their responsibilities to their people and in adopting measures to give that feeling practical expression.

The crops harvested in the autumn of 1900 and the succeeding spring were good; but this brief spell of prosperity came to an end with the monsoon of 1901, which was weak and ceased early. Fodder and pasturage were sufficient, and there was no cause for anxiety on the score of water-supply except in the south; but both the *kharīf* of 1901 and the *rabi* of 1902, besides being poor owing to want of rain, were much damaged by rats and locusts. The period of distress extended from November, 1901, to October, 1902; and the revival of the monsoon at the end of August, 1902, after an unusually prolonged break, narrowly saved the whole country from disaster. Famine conditions prevailed in Bānswāra, Dūngarpur, Kishangarh, and the Hilly Tracts of Mewār, and scarcity in parts of Jaipur, Partābgarh, Tonk, Udaipur, and the three western States. Altogether about nine million units were relieved on works or in poorhouses, at a cost of about 8½ lakhs, remissions and suspensions of land revenue were granted to the extent of 14½ lakhs, and Rs. 88,000 was advanced to agriculturists.

The succeeding seasons were favourable; but the deficient rainfall of 1905 caused considerable distress in parts, particularly in the east, and relief measures were again found necessary in ten States.

The chief steps taken to secure protection from the extreme effects of famine and drought have been the opening up of the country by means of railways and roads, the construction of numerous irrigation works, and the grant of advances for the sinking of new wells or the deepening of old ones. All these measures have of late been receiving the increased attention of the Darbārs. But in the vast desert tracts in the west and north, where water is always scarce, where artificial irrigation is out of the question, and where the crops depend solely on the rainfall, the greatest safeguard against famine consists in the migratory habits of the people. The traditional custom of the inhabitants is to emigrate with their flocks and herds on the first sign of scarcity, before the grass withers and the scanty sources of water-supply dry up. Moreover, the people are by nature and necessity self-reliant and

indifferent, if not opposed, to assistance from the State coffers, and many of them consider it so derogatory to be seen earning wages on relief works in their own country that they prefer migration. As an instance, it may be mentioned that in Jaisalmer in 1891-2 relief works started by the Darbār had to be finished by contract, as the people preferred to find employment in Sind. It would seem then that in these tracts, where there is but one crop a year, emigration must continue to be the accustomed remedy.

Administration.

The Government of India is represented in Rājputāna by a Political officer styled the Agent to the Governor-General, who is also the Chief Commissioner of the small British Province of Ajmer-Merwāra. He has three or more Assistants, two of whom are always officers of the Political department, and a native Attaché. Other members of his staff are the Residency Surgeon and Chief Medical Officer, and the Superintending Engineer and Secretary in the Public Works department. Subordinate to the Governor-General's Agent are three Residents and five Political Agents, who are accredited to the various States forming the Rājputāna Agency; and in the south-west of Udaipur State the commandant and second in command of the Mewār Bhīl Corps are, subject to the general control of the Resident, respectively Political Superintendent and Assistant Political Superintendent of the Hilly Tracts of Mewār.

The following is a list of the officers who have held the substantive appointment of Agent to the Governor-General:—Colonel A. Lockett (1832); Major N. Alves (1834); Colonel J. Sutherland (1841); Colonel J. Low (1848); Colonel G. Lawrence (1852 and 1857); Colonel Sir H. Lawrence (1853); Colonel E. K. Elliot (1864); Colonel W. F. Eden (1865); Colonel R. H. Keatinge (1867); Colonel Sir L. Pelly (1874); Sir A. C. Lyall (1874); Colonel Sir E. Bradford (1878); Colonel C. K. M. Walter (1887); Colonel G. H. Trevor (1890); Sir R. J. Crosthwaite (1895); Sir A. Martindale (1898); and Mr. E. G. Colvin (1905).

The actual administrative organization of the different States varies considerably; but, speaking generally, the central authority is in the hands of the chief himself and, when he has a turn for government, his superintendence is felt everywhere. He is usually assisted by a Council or a body of ministerial officers called the *Mahakma khās*, or by a Dīwān or Kāmdār. The officials in the districts are variously termed *hākims*, *tahsīldārs*, *nāzīms*, and *ziladārs*, and, as a rule, they perform both revenue and judicial duties.

As has already been stated, the Rājputāna Agency is made up of eighteen States and two chiefships[1], which constitute eight Political

[1] There is a distinction between a State and a chiefship. In Rājputāna the ruler of a State bears the title of His Highness, while the ruler of a chiefship does not. Again,

Charges—three Residencies and five Agencies—under the superintendence of the Governor-General's Agent. The MEWĀR RESIDENCY comprises the States of Udaipur, Bānswāra, Dūngarpur, and Partābgarh; the WESTERN RĀJPUTĀNA STATES RESIDENCY comprises Jodhpur, Jaisalmer, and Sirohi; and the JAIPUR RESIDENCY comprises the States of Jaipur and Kishangarh and the chiefship of Lāwa. The five Agencies are the HĀRAOTI AND TONK AGENCY (Būndi, Tonk, and the Shāhpura chiefship), the EASTERN RĀJPUTĀNA STATES AGENCY (Bharatpur, Dholpur, and Karauli), the KOTAH-JHĀLAWĀR AGENCY, the Bīkaner Agency, and the Alwar Agency. The average area of a Political Charge is about 16,000 square miles, and the average population nearly a million and a quarter.

The various districts and subdivisions of the States are usually called *hukūmats*, *tahsīls*, *nizāmats*, *zilas*, or *parganas*, and altogether number about 220.

Legislation and justice.

In former times there was, properly speaking, neither any written law emanating from the head of the State, nor any system of permanent and regularly constituted courts of justice. Offices combining important judicial and revenue functions were openly leased out at a fixed annual rental, the lessee reimbursing himself by fines and often by legal exactions. When the public outcry against his acts became general, he would be imprisoned till he disgorged a part of the money squeezed from the unhappy people; but, having paid, he was frequently re-employed. In criminal cases the tendency of sentences was towards excessive leniency rather than severity; or, as Colonel Tod has put it, 'justice was tempered with mercy, if not benumbed by apathy.' Crimes of a grave nature were apt to be condoned by nominal imprisonment and heavy fine, while offences against religion or caste were dealt with rigorously. Capital punishments were rarely inflicted; and, in cases of murder, the common sentence would be fine, corporal punishment, imprisonment, confiscation of property, or banishment. The indigenous judiciary of the country, for the settlement of all civil and a good many criminal cases, was the *panchāyat*, or jury of arbitration. Each town and village had its assessors of justice, elected by their fellow citizens and serving as long as they conducted themselves impartially in disentangling the intricacies of the complaints preferred to them. A person tried by *panchāyat* might appeal to the chief of the State, who could reverse the decision, but rarely did so. Another form of trial was by ordeal, especially when the court of arbitration had failed to arrive at a decision. The accused would be required to put his

the Government of India has entered into formal treaties with the States, while its relations with the chiefships are regulated by some less formal document, such as a *sanad*.

arm into boiling water or oil, or have a red-hot iron placed on his hand, a leaf of the sacred fig-tree being first bound on it. If he was scalded by the liquid or burnt by the iron, he was guilty; but if he was unhurt, the miracle would be received in testimony of his innocence, and he was not only released but generally received presents. Such trials were not infrequent, and culprits, aided by art or the collusion of those who had the conduct of the ordeal, sometimes escaped.

Such was the state of affairs in olden days, and even as recently as 1867 law and system hardly existed in any State. The judges were without training and experience; their retention of office depended on the capricious will and pleasure of the chief; they were swayed and influenced by the favourites of the hour, and their decisions were liable to be upset without cause or reason. Less than thirty years ago the criminal courts of more than one State were described as mere engines of oppression, showing a determination to make a profit out of crime rather than an honest desire to inflict a deterrent punishment.

Since then, however, great progress has been made. Some of the States have their own Codes and Acts, based largely on those of British India, while in the others British procedure and laws are generally followed. Every State has a number of regular civil and criminal courts, ranging from those of the district officers to the final appellate authority. Except in the chiefships of Shāhpura and Lāwa, where cases of heinous crime are disposed of in accordance with the advice of the Political officer, and in States temporarily under management, where certain sentences require the confirmation of either the local Political authority or the Governor-General's Agent, the chief alone has the power of life or death.

Two kinds of courts, more or less peculiar to Rājputāna, deserve mention; they are the Courts of Vakīls and the Border Courts.

The former are five in number: namely, four lower courts at Deoli, Jaipur, Jodhpur, and Udaipur; and an upper court at Abu. They were established about 1844, with the special object of securing justice to travellers and others who had suffered injury in territories beyond the jurisdiction of their own chiefs, and they take cognizance only of offences against person and property which cannot be dealt with by any single State.

The lower courts are under the guidance respectively of the Political Agent, Hāraoti and Tonk, and the Residents at Jaipur, Jodhpur, and Udaipur, and are composed of the Vakīls in attendance on these officers. They are simply courts of equity, awarding both punishment to offenders and redress to the injured; and, though far from perfect, they are well adapted to the requirements of the country. Their judgements are based on the principle that the State in which an offence is committed is primarily responsible, and ultimately the State

into which the offenders are followed in hot pursuit or in which they are proved to reside or to which the stolen property is traced. The number of cases decided yearly during the decade ending 1901 averaged 110, and 109 were disposed of in 1904–5. The upper court is composed of the Vakīls attendant on the Agent to the Governor-General, and is usually presided over by one of his Assistants. Its duties are almost entirely appellate; but sentences of the lower courts exceeding five years' imprisonment, or awards for compensation exceeding Rs. 5,000, require its confirmation. The yearly number of appeals disposed of varies from 20 to 30.

The Border Courts are somewhat similar to, but rougher than, those just described, and are intended for a very rude state of society where tribal quarrels, affrays in the jungle, the lifting of women and cattle, and all the blood-feuds and reprisals thus generated have to be adjusted. They are held on the borders between the southern States of Rājputāna and the adjoining States of Gujarāt and Central India, and usually consist of the British officers in political charge of the States concerned. No appeal lies against decisions in which both officers concur; but when they differ, the cases are referred to the Agent to the Governor-General for Rājputāna, whose orders are final. The courts were established with the special object of providing a tribunal by which speedy justice might be dispensed to the Bhīls and Girāsias of this wild tract; after hearing the evidence, they either dismiss the case or award compensation to the complainant, and there is little or no attempt at direct punishment of offenders.

Among courts established by the Governor-General-in-Council with the consent of the Darbārs concerned may be mentioned that of the magistrate of ABU, described in the article on that place; those at the salt sources of Sāmbhar, Dīdwāna, and Pachbhadrā; and those connected with the railway. The salt source courts at Sāmbhar and Dīdwāna are for certain purposes included in Ajmer District, and the presiding officers are Assistant Commissioners of the Northern India Salt Revenue department, having first-class magisterial powers in the case of Sāmbhar and second-class powers in that of Dīdwāna. The Assistant Commissioner at Pachbhadrā is a second-class magistrate, subordinate to the Resident at Jodhpur, who is both District Magistrate and Sessions Judge, while the Governor-General's Agent is the High Court.

For lands occupied by the Indian Midland Railway there is a special magistrate with first-class powers and a Judge of Small Causes, while for such portions as lie within Dholpur or Kotah limits the Political officers accredited to these States are District Magistrates, Courts of Session, and District Judges, and the Governor-General's Agent is the High Court. Similarly, the Rājputāna-Mālwā Railway has its first and

second-class magistrates and courts of Small Causes; the Residents at Jodhpur and Jaipur and the Political Agents at Alwar and Bharatpur are District Magistrates and Judges for such portions of the railway as lie within the States to which they are accredited; the Commissioner of Ajmer-Merwāra is Sessions Judge for the whole of the railway in Rājputāna, and the Governor-General's Agent is the High Court.

Lastly, the three Residents, the five Political Agents, and the First Assistant to the Agent to the Governor-General are all Justices of the Peace for Rājputāna.

Finance.

The main sources of revenue in former times were the land tax and the transit and customs duties, but the amount realized cannot be ascertained. The lead, zinc, and copper mines of Udaipur are said to have yielded three lakhs yearly, and the salt sources in Jodhpur brought in an annual revenue of from seven to eight lakhs. Besides these items, numerous petty and vexatious imposts were levied in connexion with almost every conceivable subject. Among these may be mentioned taxes on the occasion of births and marriages, on cattle, houses, and ploughs, on the sale of spirits, opium, and tobacco, or for the provision of buffaloes to be sacrificed at the Dasahra festival. A long list is given by both Colonel Tod and Sir John Malcolm.

The revenue of the States of Rājputāna was estimated in 1867 at about 235 lakhs, of which nearly two-thirds was derived from the land. At the present time it amounts, in an ordinary year, to about 321 lakhs. The income of those holding on privileged tenures, such as the *jāgīrdārs* and *muāfidārs*, is not ascertainable, but is known to be large. The chief sources of revenue are: land revenue, including tribute from *jāgīrdārs*, 185 lakhs; customs duties, 47 lakhs; salt, including payments by Government under the various treaties and agreements, 30 lakhs; and railways, 24 lakhs. The remainder is derived from court fees, fines, stamps, cotton-presses, excise, forests, mines and quarries, &c. The total expenditure in an ordinary year is about 274 lakhs, the main items being, approximately, in lakhs: army and police, 64; civil and judicial staff, 40; public works, 32; privy purse, palace, and household, 30; tribute to Government, including contribution to certain local corps, 15½; and railways, 11½. The expenditure in connexion with stables, elephants, camels, and cattle is considerable, but details are not available. Among minor items may be mentioned the medical department, about 4¼ lakhs; and education, nearly 3½ lakhs.

Almost every State in Rājputāna has at one time or another coined money; but except in the case of Mewār, the ruler of which is said to have coined as far back as the eighth century, all the mints date from the decline of the Muhammadan power.

The Native Coinage Act, IX of 1876, empowered the Governor-

General-in-Council to declare coins of Native States of the same fineness and weight as British coins to be, subject to certain conditions, a legal tender in British India, and authorized Native States to send their metal to the mints of the Government of India for coinage. The only States throughout India which availed themselves of the opportunity afforded by this Act were Alwar in 1877 and Bīkaner in 1893. They called in their silver coins, and dispatched them to Government mints, whence they were reissued as rupees which bore on the reverse the name of the State and the name and title of the chief, and which were legal tender in British India. Shortly afterwards (in 1893), the Government mints were closed to the unrestricted coinage of silver, and the exchange value of all the other Native States' rupees depreciated. It was decided that the provisions of the Native Coinage Act were not applicable to the new condition of affairs; but the Government of India agreed to purchase the existing rupees of Native States at their average market value, and to supply British rupees in their place, and eight States have taken advantage of this offer, which involves cessation of the privilege of minting. There are now only seven States (Būndi, Jaipur, Jaisalmer, Kishangarh, Tonk, and Udaipur) and one chiefship (Shāhpura) which have their own coinage, and the majority of these propose converting it into British currency as soon as their finances or the rate of exchange permit.

Land revenue.

The land may be divided into two main groups: namely, that under the direct management of the Darbār, called *khālsa*; and that held by grantees, whether individuals or religious institutions, and known as *jāgīr*, *inām*, *bhūm*, *muāfi*, *sāsan*, *dharmāda*, &c. The proportion of territory under the direct fiscal and administrative control of the chief varies widely in different States. In Jodhpur it is about one-seventh of the total area, in Udaipur one-fourth, and in Jaipur two-fifths; whereas in Kotah it forms three-fourths, and in Alwar and Bharatpur seven-eighths. Where the clan organization is strongest and most coherent, the chief's personal dominion is smallest, while it is largest where he is, or has lately been, an active and acquisitive ruler.

In the *khālsa* territory the Darbār is the universal landlord; the superior and final right of ownership is vested in it, but many of the cultivators also hold a subordinate proprietary right as long as they pay the State demand. Except in Alwar and Dholpur and parts of Bīkaner and Jhālawār, where the system is *zamīndāri* or something akin to it, the Darbār deals directly with the cultivator, though in parts the headman of a village sometimes contracts for a fixed payment for a short term of years. The cultivating tenures of the peasantry at large are not easy to define accurately, though their general nature is much the same throughout Rājputāna; but they may be broadly divided into *pakkā*

and *kachchā*. Those holding on the *pakkā* tenure may be said to possess occupancy rights, which descend from father to son and may (generally with, but sometimes without, the sanction of the Darbār) be transferred by sale or mortgage. Those holding on the *kachchā* tenure are little better than tenants-at-will; the land is simply leased to them for cultivation, and can be resumed at any time, but in practice they are seldom ejected.

In former times the word *jāgīr* was applied only to estates held by Rājputs on condition of military service. The *jāgīrdār* was the Thākur or lord who held by grant (*patta*) of his chief, and performed service with specified quotas at home and abroad. The grant was for the life of the holder, with inheritance for his offspring in lineal descent, or adoption with the sanction of the chief, and resumable for crime or incapacity; this reversion and power of resumption were marked by the usual ceremonies, on each lapse of the grantee, of sequestration (*zabtī*), of relief (*nazarāna*), and of homage and investiture of the heir. At the present time, lands granted in recognition of service or as a mark of the chief's personal favour are all classed as *jāgīr*, though the grantees may be Mahājans, Kāyasths, &c. The *jāgīrdārs* may therefore be classed as Rājput and non-Rājput; and as regards the latter it will suffice to say that they usually pay no tribute or rent, but have to attend on the chief when called on. The duties and obligations of the Rājput nobles and Thākurs and the conditions on which they hold vary considerably, and are mentioned in the separate articles on the different States. Some pay a fixed sum yearly as quit-rent or tribute, and have also to supply a certain number of horsemen or foot-soldiers for the public service. Others either pay tribute or provide armed men, or, in lieu of the latter obligation, make a cash payment. At every succession to an estate, the heir is bound to do homage to his chief and to pay a considerable fee, these acts being essential to entry into legal possession of his inheritance. He also pays some customary dues of a feudal nature, such as on the accession of a chief, and is bound to personal attendance at certain periods and occasions. Disobedience to a lawful summons or order, or the commission of a grave political offence, involves sequestration or confiscation, but the latter course is rarely resorted to. *Jāgīr* estates cannot be sold, but mortgages are not uncommon, though they cannot be foreclosed; adoptions are allowed with the sanction of the Darbār.

Those holding on the *bhūm* tenure are called *bhūmiās*, and are mostly Rājputs; they usually pay a small quit-rent, but no fee on succession. They perform certain services, such as watch and ward, escort of treasure, &c.; and provided they do not neglect their duties, they hold for ever.

The other tenures mentioned above, namely, *inām*, *muāfi*, *sāsan*,

dharmāda, &c., may be grouped together. Lands are granted thereunder to Rājputs for maintenance, to officials in lieu of salary, and to Brāhmans, Chārans, &c., in charity; they are usually rent-free, and are sometimes given for a single life only. Grants to temples, however, are given practically in perpetuity, but the lands cannot be sold.

Private rights in land are hardly recognized in Rājputāna; and the payments made by the cultivators are, therefore, technically classed as revenue, and rents in the ordinary significance of the term scarcely exist. In former times the revenue was taken in kind, and the share paid varied considerably in every State for almost every crop and for particular castes. In some cases the share would be one-eleventh, and in others as much as one-half of the gross produce. Several methods of realization prevailed, but the most common were *batai* (also called *lātā*) or actual division of the produce, and *kankūt* or division by conjectural estimate of the crop on the ground. This system, though still in force in some of the States, particularly in the *jāgīr* villages belonging to the Thākurs and others, is losing ground, and cash payments are now more common. The rates vary according to the class of the soil, the distance of the field from the village, the caste of the cultivator, the kind of crop grown, the policy of the State, &c. They range from $1\frac{1}{2}$ annas per acre of the worst land to Rs. 15 or Rs. 20 per acre of the best irrigated land. In suburbs where fruit and garden-crops are grown the rate rises to Rs. 35 and Rs. 40, and some of the betel-leaf plantations pay as much as Rs. 70 per acre.

Regular settlements have been made in Alwar (1899–1900), Bharatpur (1900), Bīkaner (1894), Dholpur (1892), Jhālawār (1884), Kotah (1877–86), Tonk (1890–2), and parts of Jodhpur (1894–6) and Udaipur (1885–93); and settlements are now in progress in Bānswāra, Dūngarpur, and Partābgarh.

Miscellaneous revenue.

Poppy is grown in several parts of Rājputāna, notably in Udaipur, Kotah, Jhālawār, and the Nīmbahera district of Tonk. The area ordinarily under cultivation with poppy is about 100 square miles, but used to be considerably greater. The States, as a rule, levy export, import, and transit duties, as well as licence fees for the sale of the drug. The Government of India does not interfere with production or consumption in the States, but no opium may pass into British territory for export or consumption without payment of duty. The opium is prepared for export in balls, and is packed in chests (of 140 lb. each) or in half-chests. The Government duty is at present Rs. 600 per chest for export by sea, and Rs. 700 if intended for local consumption in India outside Rājputāna. For the weighment of the opium, the levy of this duty, and the issue of the necessary passes, dépôts are maintained at Chitor in the Udaipur State, and at Bāran in Kotah, the latter having

been opened in June, 1904. The number of chests passing yearly through the scales at Chitor averages about 4,400, while at Bāran during the nine months ending March, 1905, nearly 1,100 chests were weighed. In addition, some of the Rājputāna opium goes to the scales at Indore and Ujjain in Central India.

The salt revenue of the States is considerable, amounting to about 30 lakhs a year, of which nearly five-sixths are payments made by the Government of India under various treaties and agreements. The States of Bīkaner and Jaisalmer still make a small quantity of edible salt for local consumption, and at certain petty works in Jodhpur and Kotah the manufacture of *khāri* or earth-salt for industrial purposes is permitted up to 22,000 maunds. Elsewhere, the manufacture of salt by any agency other than that of the British Government is absolutely prohibited, and all taxes and duties have been abolished by the Darbārs. The amount paid by the Government is made up of rent for the lease of the various salt sources, royalty on sales exceeding a certain amount, and compensation for the suppression of manufacture and the abolition of duties. In addition, over 37,000 maunds of salt are delivered yearly to various Darbārs free of all charges, 225,000 maunds are made over to Jodhpur free of duty, and 20,000 maunds to Bīkaner at half the full rate of duty. The sources now worked by Government are at Sāmbhar, Dīdwāna, and Pachbhadrā, and during the five years ending 1902–3 they yielded 18 per cent. of the total amount of salt produced in India.

The excise revenue is derived from liquor and intoxicating drugs, and is estimated at about 4 lakhs a year. In the case of liquor the system in general force is one of farming, the right of manufacture and sale being put up to auction and sold to the highest bidder for a year or a term of years. In some States the stills are inspected by certain officials, but as a rule there is no Excise department and no supervision. Country liquor is prepared by distillation from the *mahuā* flower, molasses, and other forms of unrefined sugar; very little foreign liquor is consumed. The drugs in use are those derived from the hemp plant, such as *gānja*, *bhang*, and *charas*; and the right to sell them is also put up to auction.

The net average stamp revenue varies between 4 and 5 lakhs, of which about three-fourths is said to be derived from judicial, and the remainder from non-judicial stamps.

Local and municipal.

Rājputāna cannot be said to contain any municipalities in the true sense of the term, that is to say, towns possessed of corporate privileges of local government; but municipal committees have been constituted in 39 cities and towns. The elective system does not exist, all the members being nominated by the Darbār concerned or, in the case of the Abu municipality,

by the Governor-General's Agent. The principal duties of the various committees are connected with conservancy and lighting, the settlement of petty disputes relating to easements, and the prevention of encroachments on public thoroughfares; and the sanitary condition of towns under municipal administration has certainly been improved. The total expenditure of these municipalities amounts to about 3 lakhs a year, which is derived chiefly from a town tax or octroi on imports, or a conservancy cess, or from contributions from the State treasury.

Public works.

The Rājputāna circle of the Imperial Public Works department was formed in 1863 under a Superintending Engineer, who is also Secretary to the Agent to the Governor-General and to the Chief Commissioner, Ajmer-Merwāra. Of the two divisions forming this circle, one has its head-quarters at Ajmer and the other at Mount Abu. The work of the former, as far as the Native States are concerned, is practically confined to the maintenance of the road between Nasīrābād and Deoli, which traverses the southern half of Kishangarh and the extreme south-western portion of Jaipur. The Mount Abu division, on the other hand, has constructed and still maintains almost all the metalled, and nearly half of the unmetalled, roads in Sirohi State, and is responsible for the upkeep of the numerous Government buildings at Abu and at the cantonments of Erinpura, Kherwāra, Kotra, and Deesa, the last of which lies in the Bombay Presidency.

Each Native State has a Public Works department of some kind. In the smaller and poorer States will be found a single overseer, while in most of the larger or more important ones the head of the department is a British officer, usually lent by the Government of India, with a regular staff of one or more Assistant Engineers, besides supervisors and overseers as in British India. The expenditure on roads, buildings, and irrigation works in a normal year averages about 32 lakhs, and the amount spent by an individual State varies from Rs. 2,000 or Rs. 3,000 to 7 lakhs.

The more important works carried out since 1881 have been the railways in Jodhpur, Bīkaner, Udaipur, and Jaipur; numerous irrigation projects, particularly in Jaipur, Jodhpur, Kishangarh, Bharatpur, Alwar, and Kotah; a scheme for the supply of water at Jodhpur, and the extension of the gas- and water-works at Jaipur. Among bridges, those over the Banās near Isarda in Jaipur, over the Western Banās near Abu Road in Sirohi, and the pontoon-bridge across the Chambal at Kotah are deserving of mention. The most noteworthy buildings erected during recent years are:—the Albert Hall, the Lansdowne Hospital, and the additions to the Mayo Hospital at Jaipur; the Residency, the Jubilee offices, the Ratanāda palace, and the Imperial Service cavalry lines at Jodhpur; the Victoria Hall and Lansdowne Hospital

at Udaipur; the Ganga Niwās or audience-hall, the new palace (Lālgarh), and the courts and offices at Bīkaner; the Victoria Hospital at Bharatpur and the palaces at Sewar in the same State; the public offices at Dholpur; and the new palaces at Alwar and Kotah. Many of these buildings were designed by Colonel Sir Swinton Jacob, who was for many years the successful head of the Public Works department of Jaipur State.

Army.

The military forces in Rājputāna may be grouped under four heads: namely, regiments or corps of the Indian army, Imperial Service troops, local service troops maintained by the various Darbārs, and volunteers.

Rājputāna lies within the Mhow division of the Western Command of the Indian army, and contains three cantonments (Erinpura, Kherwāra, and Kotra) and the sanitarium of Abu. The total strength of the Indian army stationed in territory belonging to the States of Rājputāna is about 1,700, of whom about 70 are men from various British regiments and batteries sent up to Abu for change of air. The remainder is supplied by the 43rd (Erinpura) Regiment (see the article on ERINPURA); the Mewār Bhīl Corps (see the articles on KHERWĀRA and KOTRA); the 42nd (Deoli) Regiment, which furnishes small detachments at the Jaipur Residency and the Kotah Agency; and the 44th Merwāra Infantry, which sends a small guard to the Salt department treasury at Sāmbhar.

The Imperial Service troops are the contributions of certain States towards the defence of the Empire. They have been raised since 1888–9, are under the control of the Darbārs furnishing them, and are commanded by native officers, subject to the supervision of British inspecting officers who are responsible to the Foreign Department of the Government of India. Alwar supplies a regiment of cavalry and one of infantry, Bharatpur a regiment of infantry and a transport corps, Bīkaner a camel corps, Jaipur a transport corps, and Jodhpur two regiments of cavalry. The total force numbers over 5,000 fighting men, possesses more than 900 carts and 1,800 ponies or mules, and costs the States about 17 lakhs annually to maintain. The troops are, in times of peace, usefully employed locally and have served with credit in several campaigns: namely, Chitrāl (1895), Tīrāh (1897–8), China (1900–1), and Somāliland (1903–4).

The local forces maintained by Darbārs number about 42,000 of all arms—cavalry, 6,000; artillerymen, 2,500; and infantry, 33,500—and cost about 35 lakhs yearly. These troops are locally divided into regulars and irregulars; and while the latter are of no military value whatever, the regulars contain much capital material, and are not unacquainted with drill and discipline. The force is employed in various ways: it furnishes guards and escorts, performs police duties, garrisons forts,

drives game for the chief, &c. In the matter of ordnance, the States possess about 1,400 guns of all shapes and sizes, of which 900 are said to be serviceable. Besides the local force just described, there are the feudal quotas furnished by *jāgīrdārs*; their number is considerable, and the men are employed as official messengers, postal escorts, police, &c.

The 2nd Battalion of the Bombay, Baroda, and Central India Railway Volunteers has its head-quarters at Ajmer. The number of members residing in the Native States of Rājputāna is about 250, and they are found chiefly at Abu Road, Bāndikui, Mount Abu, and Phalera.

Police and jails.

Police duties in the *khālsa* area are performed partly by a regular police force and partly by the irregular troops maintained by the Darbārs, while almost every village has its *chaukīdār* or watchman. In the *jāgīr* estates which form such a large part of the country, the duty of protecting traffic, preventing heinous crimes, &c., devolves on the *jāgīrdārs*, but no details of the force they keep up are available. The regular police maintained by Darbārs numbers about 11,000 men and costs 12 lakhs a year. The village watchmen are usually remunerated by allotments of land and also get certain perquisites from the cultivators. Several criminal tribes, such as the Baoris or Moghias, the Mīnās, the Kanjars, and the Sānsias, are under surveillance, and efforts are being made to induce them to settle down to agricultural pursuits, but with no marked success.

The conditions under which prisoners live have been greatly ameliorated during the last thirty or forty years. Formerly, civil and criminal offenders and lunatics were huddled together indiscriminately, and taken out to beg their bread in the streets; and it was only in 1884 that the system of recovering the cost of their food from prisoners was abolished everywhere. In almost all the jails the use of the iron *bel* chain, which passed through the fetters of a long row of prisoners, was universal, and was abandoned as recently as 1888. In some States the convicts were 'chained up like dogs in the open plain, unprovided with kennels'; but the great evil was overcrowding, which was the cause of much sickness and mortality. Since those times, there has been great progress in jail management. Ventilation, diet, clothing, discipline, and general sanitary condition have all been improved; there is less overcrowding, and some of the Central jails are as well managed and as healthy as any in British territory. The condition of the prisons and lock-ups in the districts is, however, not so satisfactory. Each State and chiefship (except Lāwa) has a jail at its capital, and Jaipur has two, the second being known as the District jail. There are thus twenty jails, which are for the most part under the medical charge of the Residency or Agency Surgeon, and are annually inspected by the Chief Medical Officer of Rājputāna. These jails contain accommodation for 5,380 inmates (4,807 males and 573 females), and cost the Darbārs from $2\frac{1}{4}$ to $2\frac{1}{2}$ lakhs a year to

maintain. Complete statistics are available only from 1896, and are given in the table below:—

	1896.	1901.	1904.
Number of jails	20	20	20
Accommodation	4,764	5,327	5,380
Average daily population	4,792	5,619	4,729
(*a*) Male	4,506	5,343	4,450
(*b*) Female	286	276	279
Mortality per 1,000	28.17	41.47	17.76

The principal causes of sickness are malarial fever and splenic and respiratory affections. The jail manufactures consist of cotton and woollen cloths, rugs, carpets, blankets, dusters, paper, matting, &c. The carpets and woollen cloths made in the Bīkaner jail are famous and find a ready sale.

Besides the jails above mentioned, there are smaller prisons and lock-ups at the head-quarters of almost every district; but particulars regarding them are not available, except that they are intended for persons sentenced to short terms of imprisonment.

Education.

Only thirty or forty years ago, the Darbārs took little or no interest in education. The Thākurs and chiefs, as a rule, considered reading and writing as beneath their dignity and as arts which they paid their servants to perform for them; and there was a general feeling among Rājputs that learning and knowledge should in a great measure be restricted to Brāhmans and Mahājans. Schools existed everywhere; but they were all of the indigenous type, such as Hindu *pāthsālas* and Musalmān *maktabs*, in which reading, writing, and a little simple arithmetic were taught. Classes were held in the open air on the shady side of the street, or on the steps of the village temple, or in some veranda; and the entire school equipment often consisted only of a white board, a piece of wood for a pen, and charcoal water for ink. These indigenous institutions have held their own, and are still much appreciated, especially by the trading castes, who are generally content with a little knowledge of the vernacular, and the native system of arithmetic and accounts for their sons; if a slight acquaintance with English is sometimes thought desirable, it is because telegrams play an important part in business in these days.

The first public institutions were established at Alwar in 1842, at Jaipur in 1845, and at Bharatpur in 1858; and the other Darbārs followed suit between 1863 and 1870. Shortly afterwards, schools were opened in the districts, the teaching of English became common at the capitals of most of the States, and female education received attention. It is unfortunately not possible to show the gradual progress made in Rājputāna as a whole by giving statistics for certain


RAJPUTANA
WITH
AJMER-MERWARA
Scale = 1:4,000,000 or 63·1 Miles to an Inch
English Miles
0 20 40 60 80 100
Native States coloured yellow
Railways opened and in construction
Canals
76
78
28
26
24
Sirsa
Ellenabad
Nohar
Bhadra
Hissar
Hansi
Maham
Bhiwani
Dadri
Jhajjar
Gurgaon
Delhi
Ghaziabad
Hapur
Hasanpur
Bulandshahr
Pataudi
Ballabgarh
Rewari
Palwal
Hodal
Aligarh
Kosi
Hathras
Brindaban
Muttra
Agra
Tundla
Churu
Ramgarh
Bissau
Jhunjhunu
Loharu
Surajgarh
Chirawa
Singhana
Khetri
Shekhawati
Lachmangarh
Sujangarh
Udaipur
Sikar
Khandela
Sri Madhopur
Nawalgarh
ALWAR
Alwar
Tijara
Kishangarh
Dig
Kumher
BHARATPUR
Bharatpur
JAIPUR
Sambhar
Amber
Daosa
Chatsu
Lalsot
Kishangarh
Ajmer
Nasirabad
AJMER-MERWARA
Lawa
TONK
Tonk
Malpura
Diggi
DHOLPUR
Dholpur
Bari
KARAULI
Karauli
GWALIOR
Sawai Madhopur
Aligarh
Sheopur
Narwar
Datia
Sipri
Shahpura
Bhilwara
BUNDI
Bundi
Kotah
KOTAH
Mandalgarh
Baran
JHALAWAR
Shahabad
Bhadaura
Chitor
Jawad
Nimach
Rampura
Jhalrapatan
Guna
Chanderi
Chhabra
Raghugarh
Pachpahar
Pirawa
Khilchipur
Rajgarh
Partabgarh
Deolia
PARTAB GARH
Mandasor
Sitamau
Agar
Narsinghgarh
Jaora
Sailana
Sironj
Korwai
Etawa
Khaniadhana
Paron
J.G.Bartholomew.

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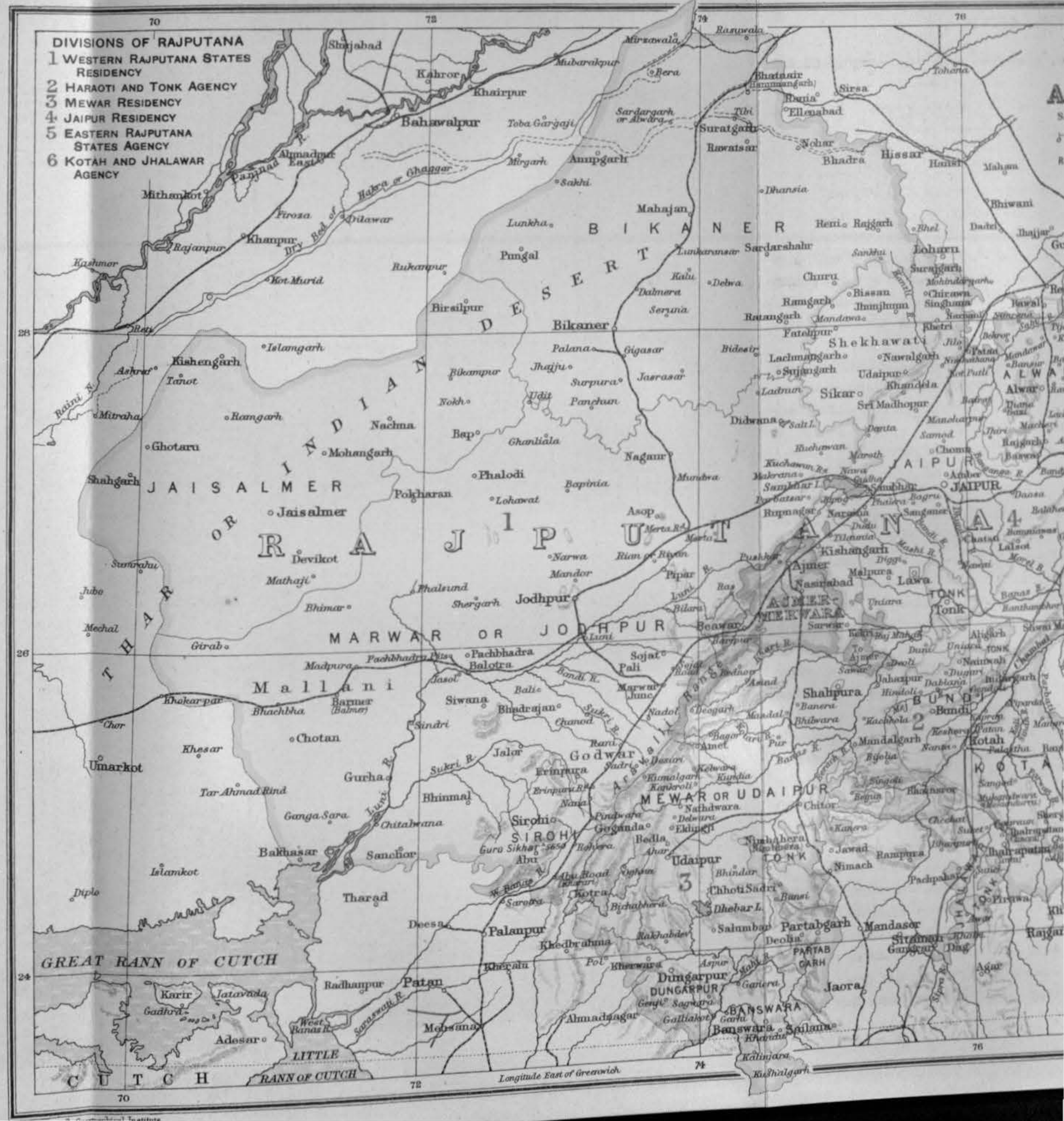
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DIVISIONS OF RAJPUTANA
1 WESTERN RAJPUTANA STATES RESIDENCY
2 HARAOTI AND TONK AGENCY
3 MEWAR RESIDENCY
4 JAIPUR RESIDENCY
5 EASTERN RAJPUTANA STATES AGENCY
6 KOTAH AND JHALAWAR AGENCY
BIKANER
INDIAN DESERT
JAISALMER
THAR OR
RAJPUTANA
MARWAR OR JODHPUR
Mallani
MEWAR OR UDAIPUR
SIROHI
AJMER-MERWARA
JAIPUR
TONK
BUNDI
KOTAH
ALWAR
DUNGARPUR
BANSWARA
PARTAB GARH
Shekhawati
Godwar
GREAT RANN OF CUTCH
LITTLE RANN OF CUTCH
CUTCH
Bahawalpur
Bikaner
Jaisalmer
Jodhpur
Ajmer
Udaipur
Longitude East of Greenwich

years, because complete returns are available for only some of the States; but there can be no doubt that the progress has been great. The number of schools and scholars has increased largely, the standard of education and the qualifications of the teachers are higher, and the successes achieved at university examinations have been considerable.

Omitting the private indigenous schools, which are known to be numerous but send in no returns, except in Jaipur, the educational institutions at the end of March, 1905, numbered altogether 647, of which 510 were maintained by the several Darbārs, 103 by private individuals, caste communities, &c., and 34 by missionary societies. They consist of four colleges, 86 secondary schools, 545 primary schools, including 53 for girls, and 12 special schools. The number on the rolls of these 647 institutions in 1905 was 37,670, and the daily average attendance during 1904–5 was 28,130. The total amount spent by the Darbārs on education is about 3½ lakhs yearly, and to this sum must be added the cost of the schools maintained by private individuals, &c. In some of the States a small school-cess is levied; but, speaking generally, education is free, fees being the exception.

The Arts colleges, two in number, are at Jaipur and Jodhpur, and were attended during 1904–5 by 96 students. The Jaipur institution dates from 1873, and the other was established in 1893. Both are first-grade colleges affiliated to the Allahābād University, and have between them, up to the present time, passed 4 students for the degree of M.A., 75 for that of B.A., and 180 in the Intermediate or First Arts examination.

The only colleges for the cultivation of the Oriental classics are at Jaipur. The Sanskrit college imparts instruction in that language up to the highest standard, while the Oriental college prepares students for the Persian-Arabic title examinations of the Punjab University.

The 86 secondary schools are attended by 11,540 boys, and are divided into high and middle schools. In the former English is taught up to the standard of the entrance and school final examinations, while in the latter either English or the vernacular is taught.

The primary schools for boys number 492, and are of two kinds, upper and lower. The daily average attendance during 1904–5 was 17,308. The course of instruction is simple, but in some of the upper schools a little English is taught.

Schools for girls were first established about 1866 in Bharatpur, Jaipur, and Udaipur; they numbered 53 in 1905, and were attended by 2,225 pupils. Female education has made little headway, as social customs hinder its growth. The subjects taught are reading, writing, and arithmetic in Hindī, and needlework.

The special schools include a school of arts at Jaipur, established in 1868 and attended during 1904 by 96 students; a normal school;

and other institutions in which painting, carpet-weaving, surveying, telegraphy, &c., are taught.

The only institutions for Europeans and Eurasians are the Lawrence school at ABU, which, however, is open only to the children of soldiers; the high school, also at Abu, which is under private management but receives a grant-in-aid from Government; and a small primary school at Abu Road, maintained by the Rājputāna-Mālwā Railway authorities for the benefit of the children of their European and Eurasian employés. Including 80 children at the Lawrence school, these three institutions were attended during 1904–5 by about 190 boys and girls.

Lastly, mention must be made of the Mayo College, which was established for the education of the chiefs and nobles of Rājputāna. An account of it will be found in the article on AJMER CITY.

The table below relates to the year 1901, and shows that in Rājputāna 62 males and 2 females out of 1,000 of either sex could read and write. The Sirohi State, owing to its comparatively large European, Eurasian, and Pārsī communities at Abu (the head-quarters of the Local Government and a sanitarium for British troops) and Abu Road, heads the list for both sexes. According to religion, 71 per cent. of the Christians, 67 per cent. of the Pārsīs, and 24 per cent. of the Jains were literate; but in the case of the Hindus and Musalmāns, who form the great majority of the population, the proportions sink to 2·7 and 2·4 per cent. respectively. Similar figures for 1891 are not available, as this information was not recorded at that Census.

State or chiefship.	Number of persons per 1,000 able to read and write.		
	Males.	Females.	Total.
Sirohi	124	6	68
Jodhpur	100	3	54
Shāhpura	98	4	53
Kishangarh	84	4	46
Partābgarh	83	1	42
Udaipur	74	2	40
Jhālawār	64	2	34
Tonk	62	2	33
Dūngarpur	65	1	33
Jaisalmer	54	1	29
Bharatpur	52	1	28
Alwar	51	1	27
Bīkaner	47	2	25
Jaipur	47	1	25
Būndi	46	1	24
Karauli	41	2	22
Bānswāra	43	1	22
Lāwa	29	3	16
Kotah	28	1	15
Dholpur	26	1	14
Total	62	2	33

Dispensaries appear to have been first opened about fifty-five or sixty years ago. The earliest report on them mentions nine as existing in 1855, and this number increased to 58 in 1871. The following table shows the subsequent progress :—

Medical.

	1881.	1891.	1901.	1904.
Number of hospitals and dispensaries	74	128	178	178
Accommodation for in-patients	459	855	1,388	1,480
Total cases treated	263,684	674,870	1,139,742	1,117,999
Average daily number of—				
(*a*) In-patients	408	623	990	723
(*b*) Out-patients	2,720	6,372	9,170	7,290
Number of operations performed	15,832	45,078	59,022	57,068
Expenditure on—				
(*a*) Establishment . . Rs.	46,000	95,916	1,69,989	1,79,521
(*b*) Medicine, diet, &c. . Rs.	19,500	78,604	1,52,932	1,33,588

Of the total of 178 hospitals and dispensaries, 168 are maintained by the Darbārs or, in a few cases, by the more enlightened Thākurs, 8 by the Government of India, and 2 partly by Government and partly from private subscriptions. Included in these are seven hospitals (with 191 beds) exclusively for females. In addition, there are four railway and two mission hospitals, in which nearly 96,000 cases were treated and 1,000 operations were performed in 1904, as well as the Imperial Service regimental hospitals from which no returns are received. The total annual expenditure of the States of Rājputāna on medical institutions, including allowances to Residency and Agency Surgeons, is about 4 lakhs.

In ten of the States small lunatic asylums are maintained ; elsewhere dangerous lunatics are usually kept in the jails. The number treated in 1904 was 151. At the Census of 1901, 967 persons (591 males and 376 females) were returned as insane ; the chief causes of the malady are said to be mental strain and intemperance.

Inoculation by indigenous methods was at one time widely practised, but is now disappearing with the spread of vaccination. The Bhīls are said to have inoculated from time immemorial under the name of *kanai*, the operation being performed with a needle and a grain of dust dipped into the pock of a small-pox case.

Vaccination appears to have been introduced on a small scale about 1855–6, when 1,740 persons submitted to the operation, and the number increased to 53,000 in 1871. Since then, as will be seen from the table on next page, there has been great progress. Vaccination is, on the whole, not unpopular, and has done much to lessen the virulence and fatality of outbreaks of small-pox. Lymph is kept up throughout the year in most of the important States by arm-to-arm vaccination in

selected places during the hot season, and humanized lymph is generally used. Buffalo calf lymph is largely employed in several States.

	1881.	1891–2.	1901–2.	1904–5.
Number of vaccinators employed	72	192	185	170
Number of persons vaccinated .	94,566	233,390	255,907	286,628
Number of successful operations .	85,403	228,425	251,816	282,749
Ratio per 1,000 of population successfully vaccinated . .	9	20	26	29
Total expenditure . . Rs.	9,892	24,558	25,720	24,226
Cost per successful case . Rs.	0–1–10	0–1–8	0–1–8	0–1–4

The system of selling quinine in pice packets at post offices was introduced in 1894. These packets were at first supplied to postmasters by the Residency and Agency Surgeons, but since 1902 have been obtained direct from the Superintendent of the Alīgarh jail. In 1904–5 more than 50,525 packets of 7-grain doses were sold.

Surveys.

The operations of the Great Trigonometrical Survey of India have extended to parts of Rājputāna, and the entire country was surveyed topographically by the Survey of India between 1855 and 1891. In the majority of the States cadastral surveys have been carried out during the last fifty years, and in a few others they are now in progress. Most of the surveys are confined to the *khālsa* or revenue-paying area, and the agency employed is not infrequently foreign.

[*Rājputāna Agency Administration Reports*, annually from 1865–6.—*Rājputāna Gazetteer*, vols. i–iii (1879–80, under revision).—*Report on the Famine in the Native States of Rājputāna in* 1899–1900.—*Chiefs and Leading Families of Rājputāna* (1903).—*Census Reports* (1891 and 1901).—J. Tod: *Annals and Antiquities of Rajasthan*, vol. i (1829) and vol. ii (1832).—J. Tod: *Travels in Western India* (1839).—J. Malcolm: *Memoir of Central India* (1832).—J. Sutherland: *Relations subsisting between the British Government in India and the different Native States* (1837).—G. B. Malleson: *Native States of India* (1875).—C. U. Aitchison: *Treaties, Engagements, and Sanads*, vol. iii (1892, under revision).—W. W. Webb: *Currencies of the Hindu States of Rājputāna* (1893).—T. H. Hendley: *General Medical History of Rājputāna* (1900).—F. Ashton: *The Salt Industry of Rājputāna*; see *Journal of Indian Art and Industry*, vol. ix, January, 1901.]

Rājputāna States Agency, Eastern.—*See* EASTERN RĀJPUTĀNA STATES AGENCY.

Rājputāna States Residency, Western.—*See* WESTERN RĀJPUTĀNA STATES RESIDENCY.

Rājshāhi Division.—Division or Commissionership of Eastern Bengal and Assam, extending from the Ganges to the Himālayas and

lying between 23° 49′ and 27° 0′ N. and 87° 46′ and 89° 53′ E. It is bounded on the east by Assam and the Dacca Division, and on the west by the sub-province of Bihār. The Division was formerly part of Bengal and then included the District of Darjeeling; but in 1905 it was transferred to Eastern Bengal and Assam with the addition of Mālda District, while Darjeeling was transferred to the Bhāgalpur Division of Bengal. The head-quarters of the Commissioner are at JALPAIGURĪ. The Division includes seven Districts with area, population, and revenue as shown below:—

District.	Area in square miles.	Population, 1901.	Current demand in 1903-4 for land revenue and cesses, in thousands of rupees.
Rājshāhi	2,593	1,462,407	12,22
Dinājpur	3,946	1,567,080	16,87
Jalpaigurī	2,962	787,380	9,08
Mālda	1,899	884,030	5,03
Rangpur	3,493	2,154,181	13,16
Bogra	1,359	854,533	6,05
Pābna	1,839	1,420,461	5,21
Total	18,091	9,130,072	67,62

The population increased from 7,955,087 in 1872 to 8,280,893 in 1881, and to 8,609,007 in 1891. The density of population is 505 persons per square mile, as compared with 474 for the whole of Bengal. Of the total, 62·4 per cent. are Muhammadans and 36·3 per cent. Hindus. The small remainder consists of Animists (103,633), Buddhists (6,352), and Christians (4,448, including 3,494 natives). About half the Hindus are the aboriginal Rājbansis and Kochs, and the great majority of the local Muhammadans are the descendants of converts from these tribes.

The northern part of the Division consists of a strip of submontane country, in Jalpaigurī, running along the foot of the Himālayas. This tract contains large and valuable forests, and the conditions are also very favourable to the growth of tea; the area under this crop in Jalpaigurī was 121 square miles in 1903, and the out-turn in that year amounted to nearly 37 million pounds. The remainder of the Division forms part of the great Gangetic plain. The surface consists of recent alluvium, except in portions of Mālda, Rājshāhi, Dinājpur, and Bogra, which belong to an older and more elevated alluvial formation known as the BĀRIND. More than half of the tobacco crop of Bengal is produced in Jalpaigurī and Rangpur, and jute is extensively cultivated in the south-east of the Division, while the rice of Dinājpur is well-known. The Division contains 18 towns and 31,303 villages. The largest towns are SIRĀJGANJ (population, 23,114) and

RĀMPUR BOĀLIĀ (21,589). The chief place of commercial importance is the jute mart of Sirājganj. A considerable amount of trade also passes through SĀRA, where the northern section of the Eastern Bengal State Railway meets the Padmā, or main stream of the Ganges; SAIDPUR is the head-quarters of this section. GAUR and PANDUA were capitals of the early Muhammadan rulers of Bengal and contain ruins of great interest; DEVĪKOT, GHORĀGHĀT, MAHĀSTHĀN, and SHERPUR also possessed some importance under Muhammadan rule, and many traditions of earlier times are associated with the ruins at these places; but with these exceptions the Division contains few places of historical interest.

Rājshāhi District (the 'royal territory').—District in the south-western corner of the Rājshāhi Division, Eastern Bengal and Assam, lying between 24° 7′ and 25° 3′ N. and 88° 18′ and 89° 21′ E., with an area of 2,593 square miles. It is bounded on the north by Dinājpur and Bogra Districts; on the east by Bogra and Pābna; on the south and south-west by the Padmā, or main stream of the Ganges, which separates it from Nadiā and Murshidābād; and on the west by Mālda.

Physical aspects.

The District is composed of three entirely distinct tracts. The north-western portion, bordering on Mālda and Dinājpur, is elevated and undulating, with a stiff red clay or quasi-laterite soil; where not cultivated, it is covered with brushwood, interspersed with large trees, the remains of an extensive forest. Along the bank of the Padmā or Ganges is a comparatively high and well-drained tract of sandy soil, while the central and eastern *thānas* are a swampy depression, waterlogged and abounding in marshes; the rivers that once drained this tract have been cut in half by the Padmā and their mouths have silted up.

With the exception of the PADMĀ, which forms the southern boundary of the District, and of the MAHĀNANDĀ, which runs for a short distance along its western border, the river system is a network of moribund streams and watercourses, some of which are connected with the Padmā and others with the Brahmaputra. The Baral is an offshoot of the Padmā, which eventually mingles its waters with those of the Atrai; its upper channels have silted up, and from December to June there is now scarcely any current. The Nārad was formerly another important branch of the Padmā, but its channel is now practically dry even during the rains. The chief representatives of the Brahmaputra system are the Atrai and the JAMUNĀ. The former is navigable throughout the year by small cargo boats, the latter only in the rains. Another river, whose lower reaches are usually passable by country boats, is the Bārānai, which flows in an easterly direction through the subdivision of Nator.

The District slopes slightly from west to east; its drainage is

carried off not by rivers, but through a chain of marshes and swamps. The largest of these is the CHALAN BĪL, into which the overflow from all the others sooner or later finds its way, to be passed on eventually, through an outlet at its south-eastern corner, into the Brahmaputra.

The greater part of the District is covered with recent alluvium, consisting of sandy clay and sand along the course of the rivers, and elsewhere of fine silt consolidating into clay. The Bārind, however, belongs to an older alluvial formation; it is composed of massive argillaceous beds of a rather pale reddish-brown hue, often weathering yellowish, in which are disseminated *kankar* and pisolitic ferruginous concretions.

Where the ground is not occupied by the usual crops of North Bengal, it is covered with an abundant natural vegetation. Old river-beds, ponds and marshes, and streams with a sluggish current have a copious vegetation of *Vallisneria* and other plants. Land subject to inundation has usually a covering of *Tamarix* and reedy grasses, and where the ground is marshy *Rosa involucrata* is plentiful. Few trees are found on these inundated lands; the most plentiful and largest is the *hidjal* (*Barringtonia acutangula*). There are no forests; and even on the higher ground the trees are few and stunted, and the surface is covered by grasses, such as *Imperata arundinacea* and *Andropogon aciculatus*. Among trees the most conspicuous is the red cotton-tree or *semal* (*Bombax malabaricum*); the *sissū* (*Dalbergia Sissoo*) and the mango occur as planted or sometimes self-sown species. The villages are generally buried in thickets of semi-spontaneous and more or less useful trees.

Tigers are occasionally found in the Bārind and in the country south of the Chalan Bīl, but they are nowhere common. Leopards have greatly diminished in numbers in recent years. Fish abound in all the rivers, and the annual value of the Padmā fisheries alone has been estimated at 2 lakhs.

Mean temperature increases from 63° in January to 85° in April, May, and June. It is about 83° during the monsoon months, falling to 72° in November and 65° in December. The highest average maximum is 96° in April, and the lowest average minimum 51° in January. The annual rainfall averages 57 inches, of which 6·2 fall in May, 10·1 in June, 11·7 in July, 10·4 in August, and 10·4 in September.

The earthquake of 1897 was very severely felt, especially in the east of the District. Only 15 deaths were reported, but great damage was caused to property, and the total loss to Government alone was estimated at 1½ lakhs. Earth fissures occurred in many places, the roads were badly cracked, and the crops damaged by surface subsidences.

Rājshāhi must originally have formed part of the old kingdom of

PUNDRA or Paundravardhana, the country of the Pods, whose capital was at MAHĀSTHĀN. Under the Sen kings this was known as the Bārendra Bhūmi, a name which still survives in the Bārind tract already referred to. Rājshāhi presents an example of the process by which a native *zamīndāri* has been moulded into a British District. Early in the eighteenth century it was granted by the Muhammadans to Rāmjīban, the founder of the Nator family. In 1728 the *zamīndāri* of Rājshāhi extended from Bhāgalpur on the west to Dacca on the east, and included a large subdivision called Nij Chakla Rājshāhi, on the south bank of the Padmā, which stretched across Murshidābād and Nadiā as far as the frontiers of Bīrbhūm and Burdwān. Rājshāhi thus comprised an area of 13,000 square miles, and paid a revenue of 27 lakhs. Unfortunately, however, for the Nator family, the estate fell under the management of a woman, the celebrated Rānī Bhawāni, whose charitable grants of rent-free land permanently impoverished her ancestral possessions. After some years of direct management by Government officers, the Rānī's adopted son was permitted in 1790 to engage for the whole District at a permanent assessment of 23 lakhs; but the strict regulations which were then introduced for the recovery of revenue arrears by sale of the defaulter's estate were constantly called into requisition against the Rājā, and parcel after parcel of his hereditary property was sold.

History.

Meanwhile another chain of circumstances was tending to dissolve the integrity of the original District. At first an attempt was made to administer justice through a single Collector-Judge and Magistrate with two assistants, one stationed at Murādbāgh, near Murshidābād, and the other at the local capital of Nator. In 1793, however, a general redistribution of Bengal into Districts was made, and the extensive tract lying south of the Padmā was taken from the parent District and divided among the adjoining jurisdictions of Murshidābād, Nadiā, and Jessore. The prevalence of crime in the remoter parts of the District rendered further reductions necessary; and in 1813 the present District of Mālda was constituted out of a neglected tract in the west, towards which Rājshāhi, Dinājpur, and Purnea all contributed their share; Bogra was formed in a similar manner in 1821, and Pābna in 1832; and thus Rājshāhi District assumed its present proportions.

Population.

The population of the present area increased from 1,423,592 in 1872 to 1,450,776 in 1881, but fell to 1,439,634 in 1891. It rose again to 1,462,407 in 1901, but the growth since 1872 is little more than 2 per cent. Rājshāhi is one of the most feverish Districts in Bengal, the unhealthiest portion being the central and eastern tract of waterlogged country which has already been described. This area is notoriously malarious, and the mortality from

fever has consistently been among the highest recorded in Bengal. The prevailing disease is malarial fever; but cholera and dysentery also claim their victims.

The chief statistics of the Census of 1901 are shown below:—

Subdivision.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Rāmpur Boāliā .	910	1	2,271	563,936	620	− 1.3	24,297
Naogaon . .	867	...	2,346	476,072	549	+ 12.1	20,211
Nator . .	816	1	1,727	422,399	518	− 4.8	17,732
District total	2,593	2	6,344	1,462,407	564	+ 1.6	62,240

The two towns are RĀMPUR BOĀLIĀ, the head-quarters, and NATOR. The density would be far greater but for the fact that the District contains a large portion of the Bārind and numerous marshes and lakes, including the Chalan Bīl. In a belt of country running from north to south through the centre of the District the population is as dense as in almost any part of North Bengal. For the net increase the north of the District is entirely responsible. In the Bārind the population has increased since 1872 by 25.6 per cent., and in the *gānja*-growing *thānas* (Naogaon and Pānchupur) by 59.3 per cent., while in the decadent southern and central *thānas* there has been a decrease of 12.8 per cent. There has been an extension of immigration to the Bārind on the part of aboriginal Santāls, Mundās, and Oraons, who are encouraged to break down and clear the jungle by the *zamīndārs*. They are allowed to occupy waste land rent free for three or four years; and they then move on, leaving the fields they have brought under cultivation to be occupied by the less hardy Hindu ryots, who would shrink from undertaking on their own account the irksome task of reclamation. There has been a considerable drift of population within the District from the unhealthy waterlogged tract to the healthier and more prosperous *thānas* in the Naogaon subdivision. During the cold season numerous *pālki*-bearers, earth-workers, and field-labourers visit the District, and their presence at the time of the Census caused a large excess of males over females. The dialect known as Northern Bengali is the vernacular of the District. Muhammadans number 1,135,202, or 77.6 per cent. of the population, a proportion exceeded only in the neighbouring District of Bogra. Hindus (325,111) constitute the greater part of the remainder.

The majority of the Muhammadans are Shaikhs, and there can

be little doubt that the majority of these, together with the functional groups of Jolāhās (18,000) and Kulus (15,000), are descendants of converts from the Chandāl and Koch communities, which are, after the Kaibarttas (66,000), still the most numerous Hindu castes in the District. Of the total population, 73 per cent. are supported by agriculture, 12·7 per cent. by industry, 5·5 by unskilled labour, and only 0·5 and 1·5 per cent. by commerce and the professions respectively.

A Presbyterian mission began work in 1862 and maintains a hospital and dispensary, an orphanage, and schools. The number of native Christians is 309.

Agriculture.

In the Bārind the only crop grown is winter rice; but the grey sandy soil of the Gangetic *thānas* supports a variety of crops, and the black loam which is found elsewhere is also extremely fertile. In the two *thānas* of Naogaon and Pānchupur the land is somewhat higher and the drainage less obstructed than in the rest of the tract.

The chief agricultural statistics for 1903-4 are reproduced below, areas being in square miles:—

Subdivision.	Total.	Cultivated.	Cultivable waste.
Rāmpur Boāliā	910	599	32
Naogaon	867	574	31
Nator	816	539	29
Total	2,593	1,712	92

Rice is everywhere the staple crop, being grown on 1,458 square miles or more than four-fifths of the net cropped area. The early rice is sown broadcast on comparatively high lands at the time of the spring showers, and is reaped from July to September. The better kinds of winter rice are first sown in nurseries, whence the seedlings are afterwards transplanted to low lands; this crop is harvested in November and December. The coarser varieties of long-stemmed rice are sown in the beds of marshes and in very low-lying land; the stem grows with the rising of the water, and the grain reaches maturity about the end of December. The winter crop forms about 77 per cent. of the whole and the autumn crop about 18½ per cent.; while the spring crop grown on marsh lands contributes only a very small proportion of the total out-turn. Various pulses (215·6 square miles) and oilseeds (149 square miles) are raised, chiefly from the autumn rice-fields during the cold season. In addition, wheat (97 square miles), barley, oats, tobacco, sugar-cane, and maize are grown to some extent. Of the non-food crops, jute (131 square miles) is the most important. Betel-leaf is exported to North Bengal and Calcutta. Indigo and mulberry used

to be grown largely; but the former has entirely disappeared, while the latter has for many years been declining, owing to the prevalence of silkworm epidemics. In order to revive the silk industry, a sericultural school has been opened at Rāmpur Boāliā, which supplies the Bengal Silk Committee with trained sericultural overseers and also trains rearers' sons in the microscopical examination of seed. The cultivation of *gānja* is carried on in a small tract of 76 square miles in the Naogaon and Pānchupur *thānas*, which supplies not merely the needs of the whole of Bengal, but also those of Assam and of a part of the United Provinces; some is also exported to Native States, and a small quantity is shipped to London, whence it is passed on to the West Indies. The area cultivated varies from year to year, the average being 812 acres with a normal out-turn of 6,952 maunds. The maximum area which may be cultivated in any year is at present fixed by the Government of India at 976 acres, but this limit is subject to periodical revision.

Little waste land now remains except in the Bārind, where it is rapidly being reclaimed. Scarcely any use is made of the Land Improvement and Agriculturists' Loans Acts, but in 1897 advances were made to the extent of Rs. 19,000.

The local cattle are poor, probably on account of the deficiency of pasture and the absence of any attempts to improve the breed. Two very old fairs are held at KHETUR and MANDĀ. These are attended by from 25,000 to 28,000 persons, and take place in October and April respectively.

Owing to the copious and regular rainfall and the annual rise of the rivers in the rainy season, artificial irrigation is rarely necessary, but it is occasionally practised on a small scale from the nearest tank or watercourse.

Trade and communications.

Cotton-weaving is a decadent industry, but it still gives employment to over 2,000 persons; cotton cloths are printed and dyed at Rāmpur Boāliā. Copper, brass, and bell-metal utensils are produced at Kalam and Budhpāra in the Nator subdivision, and pottery for domestic use and brick rings for earthen wells are also manufactured in the former village. Reed mats are made at Naogaon for local consumption. Silk is the most important industry of Rājshāhi, as well as of the neighbouring Districts of Murshidābād and Mālda, and silk-spinning and weaving have been carried on in the District for centuries. The East India Company established a factory at Rājshāhi in the eighteenth century, and in 1832 the Company had two factories, each the seat of a Commercial Resident; the Residency at Rāmpur Boāliā was subsequently purchased by the firm of Messrs. Watson & Co. The out-turn of the several filatures was formerly as much as 400,000 lb. of raw silk, valued

at 37 lakhs; but the average production for the three years ending 1899–1900 was only 96,684 lb., valued at 8·2 lakhs, and in 1903–4 the quantity manufactured fell to 67,790 lb. The bulk of the silk is exported to Europe, where it commands a ready sale at prices somewhat lower than silk from continental worms; it is used largely in the manufacture of silk hats. Some of the native spun silk is woven into a coarse cloth, called *matkā*, for local use. In 1901 there were three European silk factories—at Sardā, Kajlā, and Sarail—each possessing subordinate filatures; and the industry supported over 41,000 persons.

The bulk of the trade is with Calcutta, the chief exports being jute, rice, pulses, silk, and *gānja*, and the chief imports European piece-goods, salt, sugar, and kerosene oil. The principal marts are Sultānganj, GODĀGĀRI, RĀMPUR BOĀLIĀ, and Chārghāt on the Padmā; Changdhupail and Gurudāspur on the Baral; Kālīganj on one of the feeders of the Chalan Bīl; Prasādpur on the Atrai; and NAOGAON on the Jamunā. At Lakshmanhāti an extensive business is done in the sale and hire of sugar-cane mills and evaporating pans.

The northern section of the Eastern Bengal State Railway intersects the District from north to south. Including 747 miles of village roads, the District contains (1904) 1,299 miles of roads, of which 42 miles are metalled. The most important are those leading from Rāmpur Boāliā northward to Naohāta, via Bāya, eastward via Nator to Bogra, and south-east to Pābna, north-westwards to Mālda through Godāgāri, and northward from Godāgāri to Dinājpur.

Road traffic is gradually increasing as the natural watercourses silt up; but the rivers still provide the chief means of communication, especially during the rains, when there are few villages in the north and east of the District which cannot be approached by water. The daily steamer services which ply from Goalundo up the Padmā stop at Chārghāt, Rāmpur Boāliā, and Godāgāri for passengers and cargo, and a branch service up the Mahānandā river connects Godāgāri with Mālda.

The famine of 1874 caused some distress, which was, however, relieved by the import of grain. Relief works were again necessary in 1897, but only on a small scale.

Administration.

For general administrative purposes, the District is divided into three subdivisions, with head-quarters at RĀMPUR BOĀLIĀ, NAOGAON, and NATOR. Rāmpur Boāliā was formerly the head-quarters of the Division as well as of the District, but in 1888 the Commissioner's winter head-quarters were transferred to the more accessible station of Jalpaigurī. The staff subordinate to the District Magistrate-Collector consists of an Assistant Magistrate-Collector, five Deputy-Magistrate-Collectors, two of whom are in charge

of the subdivisions of Naogaon and Nator, the others being stationed at head-quarters, and four Sub-Deputy-Magistrate-Collectors, two of whom are stationed at Nator and two at Naogaon.

For civil work there are the courts of the District and Sessions Judge, who is also Judge of Mālda, a Sub-Judge and four Munsifs, two being stationed at Nator and one at each of the other subdivisional head-quarters. The criminal courts include those of the Sessions Judge, District Magistrate, and the Assistant, Deputy, and Sub-Deputy Magistrates. The majority of the cases before the courts arise out of disputes about land.

An account of the land revenue history has been included in the paragraph on the general history of the District. The current demand in 1903–4 was 10·26 lakhs, payable by 1,639 estates, of which 1,592, with a demand of 10·18 lakhs, were permanently settled, 20 small estates were temporarily settled, and 27 were managed direct by Government. The average revenue per cultivated acre is R. 0–13–11, or rather above the average of R. 0–13–2 per acre for the whole of Bengal. The revenue represents about 28 per cent. of the rental of the District. Rent rates vary from Rs. 3 to Rs. 9 per acre, the higher figure being paid for mulberry, sugar-cane, *gānja*, and garden lands.

The following table shows the collections of land revenue and total revenue (principal heads only), in thousands of rupees:—

	1880–1.	1890–1.	1900–1.	1903–4.
Land revenue . .	9,25	9,04	10,26	10,12
Total revenue . .	12,96	13,72	16,22	16,46

Outside the municipalities of RĀMPUR BOĀLIĀ and NATOR, local affairs are managed by the District board, with a subordinate local board in each subdivision. In 1903–4 the income of the District board was Rs. 1,71,000, of which Rs. 90,000 was derived from rates; and the expenditure was Rs. 1,64,000, including Rs. 79,000 spent on public works and Rs. 44,000 on education.

The District contains 20 *thānas* or police stations and 2 outposts. The force under the District Superintendent consisted in 1903 of 3 inspectors, 38 sub-inspectors, 30 head constables, and 402 constables. In addition to these, there was a rural police force of 3,444 *chaukīdārs* and 319 *daffadārs*. A Central jail at Rāmpur Boāliā has accommodation for 872 prisoners, and sub-jails at the other subdivisions for 30.

Rājshāhi is backward in educational matters, only 4·3 per cent. of the population (8 males and 0·4 females) being able to read and write in 1901. The total number of pupils under instruction increased from 14,227 in 1892–3 to 21,423 in 1900–1, while 22,581 boys and 1,481 girls were at school in 1903–4, being respectively 20·2 and 1·3 per cent.

of those of school-going age. The number of educational institutions, public and private, in that year was 719, including an Arts college, 35 secondary schools, and 664 primary schools. The expenditure on education was 1·73 lakhs, of which Rs. 19,000 was met from Provincial funds, Rs. 41,000 from District funds, Rs. 1,300 from municipal funds, and Rs. 70,000 from fees. The chief educational institutions are in Rāmpur Boāliā, including the Rājshāhi College and the sericultural school.

In 1903 the District contained 17 dispensaries, of which 4 had accommodation for 64 in-patients. At these the cases of 103,000 out-patients and 748 in-patients were treated during the year, and 3,038 operations were performed. The expenditure was Rs. 40,000, of which Rs. 1,500 was met from Government contributions, Rs. 14,000 from Local and Rs. 7,000 from municipal funds, and Rs. 12,000 from subscriptions.

Vaccination is compulsory only within the municipalities of Rāmpur Boāliā and Nator. The number of persons successfully vaccinated in 1903-4 was 52,000, representing 36 per 1,000 of the population.

[Sir W. W. Hunter, *Statistical Account of Bengal*, vol. viii (1877).]

Rājula.—Town in the State of Bhaunagar, Kāthiāwār, Bombay, situated in 21° 3′ N. and 71° 30′ E. Population (1901), 5,150. Rājula has for many years been a centre of local trade, and its building stone is largely used in the State. About 8 miles north-east of the town is the striking hill of Bābariādhār, crowned by a rude stone fort, which half a century ago was a favourite haunt of lions. The exports consist chiefly of cotton and building-stone, and the imports of grain, timber, and piece-goods.

Rājūra.—*Tāluk* in Adilābād District, Hyderābād State, with an area of 595 square miles. The population in 1901, including *jāgīrs*, was 24,807, compared with 25,677 in 1891, the decrease being due to emigration to more favoured parts of Sirpur and Adilābād. The *tāluk* contains 128 villages, of which 29 are *jāgīr*, and Rājūra (population, 2,213) is the head-quarters. The land revenue in 1901 was Rs. 38,200. Rājūra is very thinly populated, containing extensive areas of cultivable waste and forest.

Rakhabh Dev.—Walled village in the Magrā *zila* of the State of Udaipur, Rājputāna, situated in 24° 5′ N. and 73° 42′ E., in the midst of hills, about 40 miles south of Udaipur city, and 10 miles north-east of the cantonment of Kherwāra. Population (1901), 2,174. A small school here, originally started for the benefit of the Bhīls, is attended by about 40 boys, half of whom are of this tribe. Serpentine of a dull green colour is quarried in the neighbourhood, and worked into effigies and vessels of domestic use, which are sold to the numerous pilgrims who visit the place. The famous Jain temple, sacred to Adināth or

Rakhabhnāth, is annually visited by thousands of pilgrims from all parts of Rājputāna and Gujarāt. It is difficult to determine the age of this building, but three inscriptions mention that it was repaired in the fourteenth and fifteenth centuries. The principal image is of black marble and is in a sitting posture about three feet in height; it is said to have been brought from Gujarāt towards the end of the thirteenth century. Hindus, as well as Jains, worship the divinity, the former regarding him as one of the incarnations of Vishnu and the latter as one of the twenty-four Tīrthankars or hierarchs of Jainism. The Bhīls call him Kālājī, from the colour of the image, and have great faith in him. Another name is Kesaryajī, from the saffron (*kesar*) with which pilgrims besmear the idol. Every votary is entitled to wash off the paste applied by a previous worshipper, and in this way saffron worth thousands of rupees is offered to the god annually.

[*Indian Antiquary*, vol. i.]

Rakhshān.—River in Baluchistān, rising near Shireza, a point close to the eastern junction of the Central Makrān and Siāhān ranges. It traverses Panjgūr, on the west of which it is joined by the Gwārgo stream. It then turns northward, and joining the Mashkel river from Persia in 27° 10′ N. and 63° 27′ E., bursts through the Siāhān range by the fine defiles of Tank-i-Grawag and Tank-i-Zurrati, and runs under the latter name along the western side of Khārān to the Hāmūn-i-Māshkel. Its total length is 258 miles. Water from the Rakhshān is used for irrigation in Nāg-i-Kalāt, Panjgūr, and Dehgwar in Khārān.

Rāmachandrapuram Tāluk.—*Tāluk* in the delta of Godāvari District, Madras, lying between 16° 41′ and 17° 3′ N. and 81° 49′ and 82° 13′ E., with an area of 296 square miles. The population in 1901 was 220,356, compared with 198,596 in 1901. It contains one town, MANDAPETA (population, 8,380), and 117 villages, Rāmachandrapuram being the head-quarters. The demand on account of land revenue and cesses in 1903-4 amounted to Rs. 11,60,000. The *tāluk* is the most densely populated and the richest in the District. Its soil is classed almost entirely as alluvial, and it is irrigated by numerous canals. The little French Settlement of YANAM is situated within it; while Kotipalli and Drākshārāma, two of its villages, are well-known places of pilgrimage.

Rāmagiri.—Agency *tāluk* in the west of Ganjām District, Madras, with an area of 1,191 square miles. The population, consisting mostly of Savaras, was 74,393 in 1901, compared with 64,143 in 1891. They live in 542 villages. No land revenue is realized, except a *nazarāna* of Rs. 593 paid by the *zamīndārs* of Peddakimedi and Surangi and four *patros* (headmen). The head-quarters are at Rāmagiri-Udayagiri, which is connected with Berhampur by a good road. Rāmagiri is the most sparsely populated *tāluk* in the District and the worst in point of

climate. Timber and other hill produce are exported, but the supply of good *sāl* trees in accessible positions is very limited. Excellent oranges are grown. The western part of the *tāluk* is very mountainous and difficult of access.

Rāmallakota (literally, 'diamond fort').—*Tāluk* of Kurnool District, Madras, lying between 15° 18′ and 15° 55′ N. and 77° 36′ and 78° 10′ E., with an area of 846 square miles. The population in 1901 was 142,855, compared with 124,971 in 1891. Musalmāns are more numerous than in any other *tāluk* of the District; half of them are residents of Kurnool town. The density is 169 persons per square mile, compared with the District average of 115. It contains one town, KURNOOL (a municipality with a population of 25,376, the head-quarters of the *tāluk* and District), and 106 villages (inclusive of 7 'whole *ināms*'). The demand for land revenue and cesses in 1903-4 amounted to Rs. 2,66,000. On the north the Tungabhadra forms the boundary, separating it from the Nizām's Dominions. The only other river is the Hindri, which, with its tributaries the Dhone Vāgu and Hukri, drains the whole *tāluk* and ultimately falls into the Tungabhadra at Kurnool. The KURNOOL-CUDDAPAH CANAL takes off from the Tungabhadra at Sunkesula in this *tāluk* and is led along the northern portion of it, irrigating about 3,300 acres. The annual rainfall averages 28 inches, about three-fourths of which is received during the south-west monsoon. Most of the *tāluk* is covered with black cotton soil. It contains 65 square miles of 'reserved' forests, almost the whole of which is on the Erramalas.

Rāmanādapuram.—Subdivision, *zamīndāri tahsīl*, estate, and town in Madura District, Madras. See RĀMNĀD.

Rāmandrug.—Sanitarium of Bellary, situated in 15° 8′ N. and 76° 30′ E., within the limits of the Native State of SANDŪR, attached to the Madras Presidency. Criminal jurisdiction has been made over by the Rājā to the Madras Government (with certain restrictions), and affairs within it are controlled by the Collector of Bellary. The sanitarium consists of a small plateau, 1¼ miles long by half a mile wide, on the top of the southern of the two ranges of hill which enclose the valley of Sandūr. It is 3,256 feet above the sea and about 1,400 feet above the bottom of the valley. On all sides the ground falls sharply away; and this characteristic, though it affords numerous excellent views into the Sandūr valley on the one side and over the western *tāluks* of Bellary as far as the Tungabhadra on the other, gives the place a cramped air which the various paths cut along the hill-sides do not serve to remove. The place is called after the village and fort of the same name which stand at the southern end of the plateau. Remains of the old defences, in the shape of a considerable wall of enormous blocks of stone, are still visible. Local tradition says they were built

by, and named after, a *poligār* called Komāra Rāma, who is still a popular hero. A favourite play in Sandūr is one in which his step-mother treats him as Potiphar's wife did Joseph, but in which his innocence is ultimately established. The buildings on the plateau include barracks, a hospital, &c., built in 1855 and designed to accommodate about 70 soldiers; and some fifteen bungalows belonging to various residents of Bellary. Two carriage roads run along the whole length of the station. There are several mineral springs in it. A short distance down the cliff on the southern side is a cave leading into a passage, which has been followed a great distance into the hill. The annual rainfall averages 39 inches, and the temperature is 12° cooler than that of Bellary. The mean for April and May is about 80°, and the highest figure on record in the hottest months is 87° in the shade. During the south-west monsoon the chilly fogs which wrap the place about from sunset to 10 a.m., and often later, make fires almost a necessity.

Three roads lead to the station: one from Bāvihalli, a village on the road between Sandūr and Hospet; a second from Hospet; and the third from Nārāyanadevarakeri. They are all practicable for carts. The first was the usual route from Bellary before the railway line was extended to Hospet. The second road, that from Hospet, is now the usual route, the distance from the railway station being 14 miles. Europeans reside in the station only in the hotter months from March to June. A sub-magistrate is stationed here during this period. For the rest of the year the place is deserted, except by the inhabitants of the village of Rāmandrug.

Rāmanka.—Petty State in KĀTHIĀWĀR, Bombay.

Ramās.—Petty State in MAHĪ KĀNTHA, Bombay.

Rāmāyampet.—Former *tāluk* in Medak District, Hyderābād State, with an area of 403 square miles. The population in 1901, including *jāgīrs*, was 75,364, compared with 73,217 in 1891. The land revenue in 1901 was 2·8 lakhs. In 1905 the *tāluk* was split up, and its villages transferred to the Medak *tāluk* of this District and the Kāmāreddipet *tāluk* of Nizāmābād.

Rambha.—Village in the Ganjām *tahsīl* of Ganjām District, Madras, situated in 19° 31′ N. and 85° 7′ E., on the trunk road and on the banks of the Chilka Lake. Population (1901), 4,028. While Ganjām was still the head-quarters of the District and contained a garrison, Rambha was a favourite resort of the Europeans who lived there; and a large two-storeyed house, built by a former Collector in 1792 and now belonging to the Rājā of Kallikota, stands in a beautiful situation overlooking the Chilka Lake. The chief trade consists in the importation of large quantities of rice from Orissa by boats across the lake and the exportation of prawns to Rangoon.

Rambrai.—Petty State in the Khāsi Hills, Eastern Bengal and Assam. The population in 1901 was 2,697, and the gross revenue in 1903–4 was Rs. 600. The principal products are rice, millet, cotton, and maize.

Rāmdurg State.—State under the Political Agent of Kolhāpur and the Southern Marāthā Jāgīrs, Bombay, with an area of 169 square miles. It is bounded on the north by the Torgal subdivision of Kolhāpur State; on the south by Nargund in Dhārwār District; on the east by the Bādāmi *tāluka* of Bijāpur District; and on the west by the Navalgund *tāluka* of Dhārwār District. The population in 1901 was 37,848, dwelling in 2 towns, of which the larger is RĀMDURG (population, 9,452), the head-quarters, and 37 villages. Hindus number 35,072 and Muhammadans 2,716.

The general appearance of the country is that of a plain surrounded by undulating lands and occasionally intersected by ranges of hills. The prevailing soil is rich black. The Malprabha river flows through the State, and is utilized for irrigation. The staple crops are wheat, gram, *jowār*, and cotton. Coarse cotton cloth is the principal manufacture. The climate is the same as that of the Deccan generally, the heat from March to May being oppressive.

Nargund and Rāmdurg, two strong forts in the Kanarese-speaking country, were occupied by the Marāthās in their early struggles; and, by favour of the Peshwās, the ancestors of the present Rāmdurg family were placed in charge of them. About 1753 the estates yielded 2½ lakhs and were required to furnish a contingent of 350 horsemen. They were held on these terms until 1778, when the country was brought under subjection by Haidar Alī. In 1784 Tipū Sultān made further demands. These were resisted, and, in consequence, the fort of Rāmdurg was blockaded by Tipū. After a siege of seven months, Venkat Rao of Nargund surrendered, and, in violation of the terms of capitulation, was carried off a prisoner with his whole family into Mysore. On the fall of Seringapatam in 1799 Venkat Rao was released, and the Peshwā restored to him Nargund and lands yielding 1¼ lakhs, and granted to Rām Rao the fort of Rāmdurg, with lands yielding Rs. 26,000. The two branches of the family continued to enjoy their respective States till 1810, when the Peshwā made a new division of the lands, in equal shares, between Venkat Rao and Nārāyan Rao, the sons of Rām Rao. On the fall of the Peshwā in 1818, the estates were continued to these two chiefs by an engagement. Nargund subsequently lapsed, and is now included in the Navalgund *tāluka* of Dhārwār District.

The chief, who is a Konkanasth Brāhman, ranks as a first-class Sardār in the Southern Marāthā Country, and has power to try his own subjects for capital offences. He enjoys a revenue of nearly

2 lakhs. The family of the chief hold a *sanad* authorizing adoption, and follow the rule of primogeniture. There are two municipalities, with an aggregate income in 1903–4 of Rs. 6,280. In the same year the police force numbered 80, and the only jail had a daily average of 31 prisoners. The State contained 17 schools in 1903–4, with 1,059 pupils. Two dispensaries were attended by about 11,000 patients in the same year, and nearly 900 persons were vaccinated.

Rāmdurg Town.—Capital of the State of Rāmdurg, Bombay, situated in 15° 5′ N. and 75° 2′ E. Population (1901), 9,452. The forts of Rāmdurg and Nargund are said to have been built by Sivajī. Hand-woven cloth is exported from the town, which is administered as a municipality with an income in 1903–4 of Rs. 4,000. It contains a dispensary.

Rāmeswaram.—Town in Madura District, Madras, situated in 9° 17′ N. and 79° 19′ E., on the island of Pāmban. Population (1901), 6,632. It contains one of the most venerated Hindu shrines in India, which was founded, according to tradition, by Rāma himself as a thank-offering for his success in his expedition against Rāvana, the ten-headed king of Ceylon, who had carried off his wife, Sītā. For centuries the temple has been the resort of thousands of pilgrims from all parts of India; and until recently they had to traverse on foot the inhospitable wastes of the Rāmnād estate which separated it from the nearest railway station at Madura. The pilgrimage is now rendered easy by the railway which has lately been built from that place to Mandapam, a point on the mainland facing the town of Pāmban, 8 miles from Rāmeswaram.

The great temple stands on slightly rising ground in the north-eastern part of the island. It is in the form of a quadrangular enclosure, 650 feet broad by about 1,000 feet long, and is entered by a gateway surmounted by a *gopuram* or tower 100 feet high. The oldest portion is built of a dark and hard limestone, traditionally said to have been brought from Ceylon, while the more modern parts are constructed of a friable sandstone quarried in the island itself. The inner *prākāram* or corridor is ascribed to the piety of an early Madura Naik, while the outer *mantapam* was the work of two of the Rāmnād chiefs or Setupatis, with the history of whose line, as the 'lords of the causeway' leading from the mainland to Pāmban Island and the protectors of the pilgrims, the history of the temple has for centuries been intimately connected.

Mr. Fergusson, in his *History of Indian Architecture*, thus describes the building:—

'If it were proposed to select one temple which should exhibit all the beauties of the Dravidian style in their greatest perfection and at the same time exemplify all its characteristic defects of design, the

choice would almost invariably fall upon that at Rāmeswaram. In no other temple has the same amount of patient industry been exhibited as here; and in none unfortunately has that labour been so thrown away, for want of a design appropriate to its display. It is not that this temple has grown by successive increments; it was begun and finished on a previously settled plan, as regularly and undeviatingly carried out as Tanjore, but on a principle so diametrically opposed to it that, while the temple at Tanjore produces an effect greater than is due to its mass or detail, this one, with double its dimensions and ten times its elaboration, produces no effect externally, and internally can only be seen in detail, so that the parts hardly in any instance aid one another in producing the effect aimed at.

'Externally, the temple is enclosed by a wall 20 feet in height with four *gopurams*, one on each face, which have this peculiarity, that they alone, of all those I know in India, are built wholly of stone from the base to the summit. The western one alone, however, is finished. Those on the north and south are hardly higher than the wall in which they stand, and are consequently called the ruined gateways. Partly from their form, but more from the solidity of their construction, nothing but an earthquake could well damage them. They have never been raised higher, and their progress was probably stopped in the beginning of the last century, when Muhammadans, Marāthās, and other foreign invaders checked the prosperity of the land, and destroyed the wealth of the priesthood. The eastern façade has two entrances and two *gopurams*. The glory of the temple, however, is in its corridors. These extend to a total length of nearly 4,000 feet. Their breadth varies from 20 feet to 30 feet of free floor space, and their height is apparently about 30 feet from the floor to the centre of the roof. Each pillar or pier is compound, and richer and more elaborate in design than those of the Pārvatī porch at Chidambaram, and certainly more modern in date.

'None of our English cathedrals is more than 500 feet long, and even the nave of St. Peter's is only 600 feet from the door to the apse. Here the side corridors are 700 feet long, and open into transverse galleries as rich in detail as themselves. These, with the varied devices and modes of lighting, produce an effect that is not equalled certainly anywhere in India. The side corridors are generally free from figure sculpture, and consequently from much of the vulgarity of the age to which they belong, and, though narrower, produce a more pleasing effect. The central corridor leading from the sanctuary is adorned on one side by portraits of the Rājās of Rāmnād in the seventeenth century, and, opposite them, of their secretaries. Even they, however, would be tolerable, were it not that within the last few years they have been painted with a vulgarity that is inconceivable on the part of the descendants of those who built this fane. Not only these, but the whole of the architecture has first been dosed with repeated coats of whitewash, so as to take off all the sharpness of detail, and then painted with blue, green, red, and yellow washes, so as to disfigure and destroy its effect to an extent that must be seen to be believed.

'The age of this temple is hardly doubtful. From first to last its style, excepting the old *vimāna*, is so uniform and unaltered that

its erection could hardly have lasted during a hundred years; and if this is so, it must have been during the seventeenth century, when the Rāmnād Rājās were at the height of their independence and prosperity, and when their ally or master, Tirumala Naik, was erecting buildings in the same identical style at Madura. It may have been commenced fifty years earlier (1550), and the erection of its *gopurams* may have extended into the eighteenth century; but these seem the possible limits of deviation.'

Rāmgangā, East.—River of the United Provinces, a tributary of the SĀRDĀ.

Rāmgangā, West (also known as Ruhut or Ruput in its upper courses).—River of the United Provinces, which rises in Garhwāl District (30° 5′ N., 79° 12′ E.) in the hills some distance south of the snowy range of the Himālayas. It flows for about 90 miles with a very rapid fall, first through Garhwāl, then through Kumaun, and after again entering Garhwāl debouches on the plains near the Kālāgarh fort, south of the peak of the same name, in Bijnor District. It is now a large river, and 15 miles lower down receives on its right bank the Khoh, which also rises in Garhwāl. Both these streams are liable to sudden floods owing to heavy rain in their upper courses. Their beds abound in quicksands, and their channels are shifting. The Rāmgangā passes south-east, through Morādābād District and the Rāmpur State, into Bareilly, after which it flows south between Budaun and Shāhjahānpur, and then, crossing the last-mentioned District, flows through the eastern *tahsīl* of Farrukhābād and part of Hardoī, falling into the Ganges a little above Kanauj, after a total course of about 370 miles. Throughout its course in the plains it receives many small streams from the Tarai, and a few larger tributaries whose sources are in the Himālayas. The Kosī in Morādābād, the Dojorā, formed by the Kichhā or West Bahgul, Dhakrā, and Bhakrā rivers in Bareilly, and the Deohā or Garrā in Shāhjahānpur are the most important of these. During its whole course in the plains the Rāmgangā flows in a shifting and uncertain bed. It changed its channel in the middle of the nineteenth century, so as to run into the Dojorā and pass Bareilly city; in the rains of 1871 it returned to its former course ten miles distant, but has once more begun to approach the city. During floods it spreads out widely on either side, and carves out new channels for itself, often destroying the fertility of the land with a layer of sand. It is little used for irrigation.

Rāmgarh.—Old District of Bengal, stretching on the north-west as far as Sherghāti in Gayā and including on the east the Chakai *pargana* of Monghyr and the *zamīndāri rāj* of Pānchet, and on the south-west and south the present District of Palāmau, while Rānchī owed a loose allegiance as a tributary estate administered by its own chief. This unwieldy District was broken up after the Kol insurrection

in 1831–2, parts of it going to Gayā, Monghyr, Mānbhūm, and Lohārdagā (now Rānchī), while the rest was formed into the modern District of Hazāribāgh.

Rāmgarh State.—*Thakurāt* in the BHOPĀL AGENCY, Central India.

Rāmgarh Hill.—Hill in the Surgujā State, Central Provinces, situated in 22° 53′ N. and 82° 55′ E. It consists of a rectangular mass of sandstone rising abruptly from the plain, about 12 miles west of Lakshmanpur village. It is ascended from the northern side by a path which follows the ridge of an outlying spur nearly as far as the base of the main rock. Here, at a height of 2,600 feet, is an ancient stone gateway, on the lintel of which is sculptured an image of Ganesh. A little to the west, but at the same level, a constant stream of pure water wells out, in a natural grotto, from a fissure in the massive bed of sandstone. A second gateway crowns the most difficult part of the ascent. Colonel Dalton considered this to be the best executed and most beautiful architectural relic in the entire region, which abounds in remains indicating a previous occupation of the country by some race more highly civilized than its present inhabitants. Though the origin of these gateways is unknown, the second is unquestionably the more modern work, and belongs to that description of Hindu architecture which bears most resemblance to the Saracenic. On the hill are several rock caves and the remains of several temples made of enormous blocks of stone. One of the most striking features is the singular tunnel in the northern face of the rock, known as the Hāthīpol, which, as its name implies, is so large that an elephant can pass through it. Its formation is supposed to be due to the trickling of water through crevices in the sandstone, and it bears no trace of human workmanship. It is about 150 feet long and 20 feet in height by 32 in breadth. In the valley on which this tunnel opens are two caves with inscriptions dating back to the second century B.C. One of them, the Jogīmārā cave, has traces on its roof of wall paintings 2,000 years old; and the other, the Sītābengā cave, is believed to have been used as a hall in which plays were acted and poems recited.

[*Archaeological Survey Reports*, vol. xi, pp. 41–5; and *Report of Archaeological Surveyor, Bengal Circle*, for 1903–4.]

Rāmgarh Town (1).—Town belonging to the Sīkar chiefship in the Shekhāwati *nizāmat* of the State of Jaipur, Rājputāna, situated in 28° 10′ N. and 74° 59′ E., about 103 miles north-west of Jaipur city. Population (1901), 11,023. The town, which is handsomely built and neatly fortified, possesses a combined post and telegraph office, and many palatial edifices belonging to wealthy bankers. Some of these bankers maintain 6 primary schools, attended in 1904 by 342 boys, and there are also 4 indigenous schools.

Rāmgarh Town (2).—Head-quarters of a *tahsīl* of the same name in the State of Alwar, Rājputāna, situated in 27° 35′ N. and 76° 49′ E., about 13 miles east of Alwar city. Population (1901), 5,179. The town possesses a post office, a vernacular school, and a hospital with accommodation for 6 in-patients. A municipal committee attends to the sanitation and lighting of the place, the average income, chiefly derived from octroi, and expenditure being about Rs. 1,900 yearly. The original settlers are said to have been Chamārs, and the place was called Bhojpur after their leader, Bhoja. A Narūka Rājput, Padam Singh, received the village in *jāgīr* from Jaipur about 1746, made it prosperous, and built a fort; but his son, Sarūp Singh, came into collision with Pratāp Singh, the first chief of Alwar, and was cruelly murdered, the town and *tahsīl* passing into the possession of Alwar in 1777. Rāmgarh is one of the central *tahsīls* of the State, and is situated in MEWĀT. It is made up of the head-quarters town and 119 villages; and of the total population of 54,043, nearly 60 per cent. are Musalmāns.

Rāmjībanpur.—Town in the Ghātāl subdivision of Midnapore District, Bengal, situated in 22° 50′ N. and 87° 37′ E. Population (1901), 10,264. Bell-metal ware is manufactured, but the weaving industry which formerly flourished has been killed by the importation of European piece-goods. Rāmjībanpur was constituted a municipality in 1876. The income and expenditure during the decade ending 1901–2 averaged Rs. 2,800 and Rs. 2,700 respectively. In 1903–4 the income was Rs. 3,550, two-thirds of which was derived from a tax on persons; and the expenditure was Rs. 3,600.

Rāmnād Subdivision.—Subdivision of Madura District, Madras, consisting of the RĀMNĀD and SIVAGANGA estates. The former of these is subdivided for purposes of administration into the *zamīndāri tahsīls* of Rāmnād, Tiruvādānai, Paramagudi, Tiruchuli, and Mudukulattūr; while Sivaganga, Tiruppattūr, and Tiruppuvanam are comprised in the latter.

Rāmnād Estate.—A permanently settled *zamīndāri* estate in the south and east of Madura District, Madras, lying between 9° 6′ and 10° 6′ N. and 77° 56′ and 79° 19′ E., consisting of the five *zamīndāri tahsīls* of Rāmnād, Tiruvādānai, Paramagudi, Tiruchuli, and Mudukulattūr, with an area of 2,104 square miles. Population (1901), 723,886. It includes the whole of the sea-coast of the District. The *peshkash* (including cesses) payable to Government by the estate in 1903–4 was 3¾ lakhs.

Regarding the early history of the estate legends are plentiful but facts are few. Its chiefs are the titular heads of the numerous caste of the Maravans, and bear the title of Setupati, or 'lord of the causeway.' This causeway is the ridge of rock which used to connect the tongue

of the mainland running out into the Gulf of Manaar with the island of Pāmban. Pāmban Island contains the holy temple of RĀMESWARAM; and tradition has it that when Rāma crossed to the island from Ceylon by way of ADAM'S BRIDGE and founded the temple as a thank-offering for his victory over Rāvana, he also appointed the first Setupati to protect the pilgrims who should traverse the causeway to visit it. The chiefs of Rāmnād appear to have undoubtedly borne the title as far back as the fourteenth and fifteenth centuries; and in the early years of the seventeenth century it was formally conferred by one of the Naik kings of Madura on the head of the Maravans, from whom the present owners of the estate are descended.

Of the earlier chiefs, Raghunātha Kilavan (1673–1708) is perhaps the best known. It was he who moved the capital of the country from Pogalūr, the ancient family seat, to its present site 10 miles farther east at RĀMNĀD, which he fortified. About 1725 a usurper became Setupati; but he treated his vassals so harshly that one of them joined the legitimate heir and, with the help of the Rājā of Tanjore, attacked and defeated him. The country was divided by the victors, the Rājā of Tanjore annexing that part of it which lay north of the Pāmbār river. The rebellious vassal took the more valuable two-fifths of the remainder, and founded there the line of the present *zamīndārs* of SIVAGANGA, while the other three-fifths, the present Rāmnād estates, went to the lawful heir. Throughout the Carnatic Wars the troops of Rāmnād frequently figure on one side or the other. In 1795 the Setupati was deposed by the British for insubordination and misrule, and died a state prisoner. The estate was formed into a *zamīndāri* in 1803, a permanent *sanad* (title-deed) being granted to the deposed chief's sister. The rule of her successors has been in the main one long chronicle of mismanagement, litigation, and debt. The last Rājā of Rāmnād succeeded in 1873 as a minor, and the estate was accordingly managed for the next sixteen years by the Court of Wards. During this period 8¼ lakhs was spent on repairs to irrigation works, 14 lakhs of debt was cleared off, and the estate was handed over to its owner in 1889, in good order, with a revenue which had been increased from 5 to 9 lakhs, and with a cash balance of 3½ lakhs. Within the next five years the Rājā had spent this balance, incurred further debts of over 30 lakhs, and pledged the best portions of the estate to his creditors. The *zamīndāri* is now managed by trustees for the creditors and the present proprietor, who is a minor.

The Rāmnād estate is perhaps the most desolate and uninviting area of its size in the Presidency. Almost dead level throughout, and for the most part infertile, the coast is lined with blown sand and brackish swamps, diversified only by stunted scrub and palmyra palms. It has only two fair roads (those from Madura to Rāmnād and to Tiruchuli);

its irrigation works depend upon the capricious rivers Vaigai and Gundār, and are often in the last state of disrepair and neglect; and except Rāmnād and Rāmeswaram, already referred to, it contains no town of interest or importance. Its chief port, Kīlakarai, is in a declining state, and two others of its principal towns, Kamudi and Abirāmam, have advanced but little for many years. Paramagudi, on the road to Madura, has some reputation for hand-painted cloths; but the only flourishing town in the estate is Aruppukkottai on the western border, which derives much of its prosperity from trade with the neighbouring District of Tinnevelly.

The South Indian Railway has recently been carried from Madura through Rāmnād to Mandapam, at the extreme end of the tongue of mainland which runs out to meet PĀMBAN ISLAND. Projects for carrying it over the remains of the old causeway on to the island, and for cutting a ship canal through the island and establishing a port for ocean-going vessels near by, are now under consideration, and if carried out will greatly increase the prosperity of this portion of the *zamīndāri*. Pāmban and the other smaller coral islands in the Gulf of Manaar are even at present the pleasantest portions of the estate, and are noted for their turtles and oysters.

Rāmnād Tahsīl.—*Zamīndāri tahsīl* in the subdivision and estate of the same name in Madura District, Madras. The population in 1901 was 112,851, compared with 107,601 in 1891. It contains three towns, RĀMNĀD (population, 14,546), the head-quarters; KĪLAKARAI (11,078), a decaying seaport on the coast; and RĀMESWARAM (6,632), which stands on the island of Pāmban and is noted for its beautiful temple. The *tahsīl* is an unlovely tract, consisting for the most part of poor sandy or saline soils, covered with little growth beyond stunted scrub and palmyra palms. The sea-breezes, however, suffice to keep it cooler than most of the rest of the District.

Rāmnād Town (*Rāmanātha-puram*, 'the town of Rāmanātha').—Head-quarters of the subdivision, *zamīndāri*, and *tahsīl* of the same name in Madura District, Madras, situated in 9° 22′ N. and 78° 51′ E., with a station on the Madura-Pāmban Railway. Population (1901), 14,546. The town is the head-quarters of the divisional officer and of an Assistant Superintendent of police, and contains a church belonging to the Society for the Propagation of the Gospel, and two Roman Catholic places of worship. It is also the residence of the Rājā of Rāmnād, whose palace, a large rambling building, stands at the end of the chief street. It lies in the midst of ugly and uninteresting country, and its redeeming point is its climate, which is never very hot and is generally tempered by a breeze from the sea. The town was taken by General Smith in 1772, and was under military occupation in 1792. The fortifications, now destroyed, consisted of a wall 27 feet

high and 5 feet thick, surrounded by a fosse. In the centre was the palace of the chiefs.

Rāmnagar Tahsīl.—*Tahsīl* of the Rewah State, Central India, lying between 23° 12′ and 24° 23′ N. and 80° 36′ and 82° 16′ E., south of the Kaimur range, with an area of 2,775 square miles. The country consists of a medley of hill and valley with but little land suitable for cultivation, except in the bed of the Son river, which traverses the north-western corner. The population was 202,153 in 1891, and 221,980 in 1901, giving the low density of 80 persons per square mile. There are 949 villages, the head-quarters being at RĀMNAGAR. The land revenue is Rs. 86,000. There are no good roads in this tract.

Rāmnagar Village (1).—Head-quarters of the *tahsīl* of the same name in Rewah State, Central India, situated in 24° 12′ N. and 81° 12′ E. Population (1901), 2,621. The village contains a school and a dispensary, and is connected by an unmetalled road, 15 miles in length, with Govindgarh, whence a metalled road leads to Rewah town.

Rāmnagar Town (1).—Town in the Wazīrābād *tahsīl* of Gujrānwāla District, Punjab, situated in 32° 20′ N. and 73° 48′ E., on the Siālkot-Multān road, on the left bank of the Chenāb, 26 miles west of Gujrānwāla town. Population (1901), 7,121. The town, originally known as Rasūlnagar, was founded by Nūr Muhammad, a Chatha chieftain, who possessed great power in the Punjab during the first half of the eighteenth century; and it rapidly grew to importance under his family. In 1795 it was stormed by Ranjīt Singh, after a gallant resistance by Ghulām Muhammad, the reigning Chatha chief, and received from the Sikhs its new name of Rāmnagar. Several fine buildings, erected during the Chatha supremacy, still remain. In 1848, during the second Sikh War, Lord Gough first encountered the Sikh troops of Sher Singh near Rāmnagar. Akālgarh, on the North-Western Railway, is 5 miles off. The diversion of through trade caused by the opening of the Sind-Sāgar Railway is ruining its trade, and its manufacture of leathern vessels is now extinct. The municipality was created in 1867. The income during the ten years ending 1902–3 averaged Rs. 7,000, and the expenditure Rs. 6,900. In 1903–4 the income was Rs. 6,900, chiefly from octroi; and the expenditure was Rs. 7,400. The town has a vernacular middle school, maintained by the municipality, and a Government dispensary.

Rāmnagar Town (2).—Town in the Chandaulī *tahsīl* of Benares District, United Provinces, situated in 25° 16′ N. and 83° 2′ E., on the right bank of the Ganges nearly opposite Benares city. Population (1901), 10,882. The town owes its importance to its selection by Rājā Balwant Singh of Benares as his residence. He built a massive fort rising directly from the river bank, which is still the palace of his descendants. His successor, Chet Singh, constructed a beautiful tank

and a fine temple richly adorned with carved stone. Two broad and well-kept roads, crossing at right angles from the centre of the town, are lined with masonry shops and a few ornamental private buildings. The rest of the town consists of the usual mud houses. Rāmnagar is administered under Act XX of 1856, with an income of about Rs. 2,500. There is a considerable trade in grain; and riding-whips, wickerwork stools, and chairs are largely made. The public buildings include a school.

Rāmnagar Village (2).—Village in the Aonla *tahsīl* of Bareilly District, United Provinces, situated in 28° 22′ N. and 79° 8′ E., 8 miles north of Aonla. The place is celebrated for the ruins in its neighbourhood. A vast mound rises on the north of the village, with a circumference of about 3½ miles, which still bears the name of Ahīchhattra and is identified with the capital of the ancient kingdom of Panchāla and the place visited by Hiuen Tsiang in the seventh century. In one portion of the mound a conical heap of brick towers 68 feet above the plain, crowned by the ruins of a Hindu temple. Large quantities of stone carvings, Buddhist railings, and ornamental bricks have been found in various parts of these mounds, and a series of coins bearing inscriptions which may be dated approximately in the first or second century B.C. The kings who struck them have been conjecturally identified with the Sunga dynasty mentioned in the Purānas.

[Cunningham, *Archaeological Survey Reports*, vol. i, p. 255; *Coins of Ancient India*, p. 79; V. A. Smith, *Journal, Asiatic Society of Bengal*, 1897, p. 303; *Progress Report, Epigraphical Branch, North-Western Provinces and Oudh*, 1891–2.]

Rampa.—A hilly tract in the Agency of Godāvari District, Madras, lying between 17° 19′ and 17° 49′ N. and 81° 32′ and 81° 58′ E., with an area of about 800 square miles. Commencing about 20 miles from Rājahmundry, the country presents a succession of hills from 2,000 to 4,000 feet high, extending back from the northern bank of the Godāvari almost to the Sileru river. It takes its name from the little village of Rampa, and was originally held as a *jāgīr* by the *mansabdārs* of that place. In 1858, owing to the unpopularity of the *mansabdār*, disturbances broke out which lasted till 1862. A police force was then recruited among the hillmen. In 1879 the Scheduled Districts Act was extended to this tract; and in the same year there took place a second rising called the Rampa rebellion, which involved the employment of troops. It was not finally quelled till 1881, when the leader Chendrayya was killed. The *mansabdār* had been deported early in 1880, and a settlement made with most of the *muttahdārs* in 1879. These latter still hold the greater part of the country, paying a light tribute (*kattubadi*). The most important of them are the *muttahdārs* of Vellamūru and Musarimilli; the former in particular

is much looked up to by the hillmen of the surrounding tracts. The Rampa hill country is now almost entirely included in the minor *tāluk* of Chodavaram. It contains extensive forests; but the shifting cultivation (*podu*) practised throughout this region, to which the Forest Act is not applied, is very destructive. This practice involves burning down the forests, the crop being raised among the ashes. There are only two roads, one 14 and the other 19 miles long. A strong police force is maintained at Chodavaram, and a smaller body at Kota. Both stations are stockaded. The inhabitants are principally hill Reddis. The chief products are bamboos and tamarinds.

Rāmpāl.—Village in the Munshiganj subdivision of Dacca District, Eastern Bengal and Assam, situated in 23° 33′ N. and 90° 30′ E. Population (1901), 519. The site of the old capital of Bikrampur is pointed out near the large tank called Rāmpāl-dīghi, which is three-quarters of a mile long by a quarter of a mile broad; to the north of this tank is the Ballāl-bāri, or palace of Ballāl Sen, the remains of which consist of a quadrangular mound of earth 3,000 square feet in area surrounded by a moat 200 feet wide. Foundations and remains of other buildings are found for miles around, and early in the nineteenth century a cultivator ploughed up in the neighbourhood a diamond worth Rs. 70,000. Inside the Ballāl-bāri is a deep excavation called Agnikunda, where tradition says the last prince of Bikrampur and his family burned themselves at the approach of the Musalmāns. Close to the Ballāl-bāri stands a much venerated tomb of one Bābā Adam or Adam Shahīd.

[Cunningham, *Archaeological Survey of India Reports*, vol. xv, pp. 132–5.]

Rāmpardar.—Petty State in KĀTHIĀWĀR, Bombay.

Rāmpur State.—Native State in Rohilkhand, under the political superintendence of the Government of the United Provinces, lying between 28° 25′ and 29° 10′ N. and 78° 52′ and 79° 26′ E., with an area of 893 square miles. It resembles a wedge in shape, with the apex pointing south. On the north it is bounded by Nainī Tāl District; on the east by Bareilly; on the south by Budaun; and on the west by Morādābād. Rāmpur State is a level, fertile tract of country, the northern portion of which resembles the damp TARAI tract lying farther north. It is crossed by many small streams, the chief of which are the Kosi and Nāhal. The Rāmgangā, which flows from north-west to south-east across the southern part of the State, ultimately receives all the drainage.

Physical aspects.

The whole State lies in the area occupied by alluvium, and no rocky or stony formation occurs in any part.

The flora is that of the damp submontane tract. There is not much jungle, except in the north. Bamboos flourish everywhere, and the

country is dotted with groves of mango-trees. There are many groves of *ber* (*Zizyphus Jujuba*).

Leopards are not uncommon, and tigers have frequently been killed along the northern frontier. Game is fairly abundant. Hog, antelope, *nīlgai*, hares, partridges, quail, wild duck, florican, and small sand-grouse are found more or less throughout the territory; but snipe are scarce. Rāmpur is celebrated for its breed of hounds, originally introduced from Southern India. They are generally of a grey colour, with a smooth coat, and larger than English greyhounds. An improved variety is now obtained by crossing with English greyhounds, and the animals so bred are easier to train than the pure breed.

Regular meteorological records have been kept for only a few years. The climate resembles that of the neighbouring Districts of BAREILLY, MORĀDĀBĀD, and the submontane portion of NAINĪ TĀL. The north is very malarious.

History.

The early history of the State is that of ROHILKHAND. Two Rohilla brothers, Shāh Alam and Husain Khān, came in the latter part of the seventeenth century to seek service under the Mughal emperor. The son of the first of these, Daud Khān, distinguished himself in the Marāthā wars and received a grant of land near Budaun. His adopted son, Alī Muhammad, obtained the title of Nawāb and a grant of the greater part of Rohilkhand in 1719. Having offended the *Sūbahdār* of Oudh, Safdar Jang, who was jealous of his rapid rise to power, Alī Muhammad was compelled to surrender all his possessions in 1745 and was kept a close prisoner at Delhi for six months, after which he was released and appointed governor of the Mughal province of Sirhind, where he remained for a year. But taking advantage of the confusion consequent on the invasion of Ahmad Shāh Durrāni, he regained supremacy over Rohilkhand in 1748, and eventually obtained a confirmation of this territory from the emperor, Ahmad Shāh Bahādur. After the death of Alī Muhammad his estates were divided among his sons, and the *jāgīr* of Rāmpur Kotera fell to Faiz-ullah Khān, the younger son. On the incursion of the Marāthās, the Rohilla chiefs applied for aid to the Nawāb Wazīr of Oudh. This was granted on promise of a payment of 40 lakhs. The Rohillas, however, failed to fulfil their pecuniary obligations; and the Nawāb Wazīr obtained from Warren Hastings the use of a British army, which defeated the Rohillas and brought Rohilkhand under the direct rule of Oudh. An exception, however, was made in the case of Faiz-ullah Khān, who was permitted to retain the estate or *jāgīr* of Rāmpur on condition of military service. This obligation was afterwards commuted for a cash payment of 15 lakhs. On the death of Faiz-ullah Khān in 1793 dissensions broke out in the family, the eldest son was murdered, and the estate usurped by a younger son. As it was held under British guarantee, the aid of British troops

was given to the Nawāb of Oudh in ejecting the usurper and installing Ahmad Alī Khān, son of the murdered chieftain.

On the cession of Rohilkhand to the British Government in 1801, the family were confirmed in their possesssions. For his unswerving loyalty during the Mutiny of 1857, Muhammad Yūsuf Alī Khān, Nawāb of Rāmpur, received a grant of land, then assessed at 1·3 lakhs, in addition to other honours and an increase of guns in his salute. He was succeeded in 1864 by his son, Nawāb Muhammad Kalb Alī Khān, G.C.S.I., C.I.E., who, at the Imperial Assemblage at Delhi, received a standard and an addition for life of two guns to his salute, the ordinary salute of the chiefship being 13 guns. Sir Kalb Alī Khān died in 1887 and was succeeded by Mushtāk Alī, who only survived for two years. The present Nawāb, Hāmid Alī Khān Bahādur, was a minor at his accession; and the affairs of the State were administered by a Council of Regency till 1896, when the Nawāb was invested with full powers. He holds the honorary rank of Major in His Majesty's army, and was created G.C.I.E. in 1908.

Population.

Rāmpur contains 6 towns and 1,120 villages. Population increased from 1872 to 1891, but fell in the next decade owing to unfavourable seasons. The numbers at the four enumerations were as follows: (1872) 507,004, (1881) 541,914, (1891) 551,249, and (1901) 533,212. There are five *tahsīls*—the HUZŪR or head-quarters, SHĀHĀBĀD, MILAK, BĪLĀSPUR, and SUĀR. The head-quarters of the first are at Rāmpur city, the capital of the State, and of the others at places which give their names to the *tahsīls*. The following table gives the chief statistics of population in 1901:—

Tahsīl.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Huzūr	176	1	244	178,333	1,013	...	...
Shāhābād	166	1	197	82,716	498	...	...
Milak	156	1	201	94,046	603	...	...
Bīlāspur	204	1	223	73,450	360	...	...
Suār	191	2	255	104,667	548	...	...
State total	893	6	1,120	533,212	599	− 3·3	10,072

Hindus form 55 per cent. of the total and Musalmāns 45 per cent.—a much higher proportion than in any District of the United Provinces. The density of population is high in the centre of the State, but decreases in the north and south. The Hindustāni dialect of Western Hindī is the language in ordinary use.

Among Hindus the most numerous castes are: Chamārs (tanners and cultivators), 40,000; Lodhas (cultivators), 34,000; Kurmīs (culti-

vators), 25,000; Mālīs (market-gardeners), 20,000; Brāhmans, 16,000; and Ahīrs (graziers and cultivators), 14,000. Muhammadans include Pathāns or Rohillas, 49,000; Turks (cultivators), 33,000; Julāhās (weavers), 25,000; and Shaikhs, 24,000. As is usual in the sub-montane tract, Banjārās (8,000) are fairly numerous. Agriculture supports 61 per cent. of the population, and cotton-weaving 3·5 per cent.

Out of 440 native Christians enumerated in 1901, 386 were Methodists. There are no missions in the State.

Agriculture.

The north of the State is composed of heavy clay and chiefly produces rice. Towards the centre and south a rich loam is found, in which a great variety of crops can be grown. The main agricultural statistics for 1903–4 are given below, in square miles:—

Tahsīl.	Total.	Cultivated.	Irrigated.	Cultivable waste.
Huzūr . . .	176	131	8	25
Shāhābād . . .	166	110	8	28
Milak . . .	156	115	24	15
Bilāspur . . .	204	69	37	39
Suār	191	114	14	36
Total	893	539	91	143

Maize is the crop most largely grown, covering 125 square miles. Wheat (103 square miles) and rice (98) are also important staples, and sugar-cane was grown on 28 square miles. Cultivation is spreading, but reliable statistics are not available to indicate the variations in the area under different crops.

The cattle and ponies bred locally are very inferior. Ponies are, however, largely imported by the Banjārās, who use them as pack-animals. Mule-breeding has recently been introduced.

A system of damming small streams to provide water for irrigation had long been in force in the State. It was wasteful and unscientific, and has now been replaced by a regular system of small canals, the chief of which are taken from the Bahalla and Kosi rivers. Masonry dams have been thrown across these two rivers, and others are contemplated. Almost the whole area north of the Rāmgangā is protected by canals. The area irrigated varies according to the season from about 50 to 150 square miles.

Trade and communications.

The most important industry is the weaving of cotton cloth, which is carried on in many places. A very fine cotton damask, called *khes*, which is produced at Rāmpur city, is not surpassed in any part of India. Ornamental pottery is also made, consisting of a red earthen body overlaid with opaque enamel, which is coloured dark blue or turquoise. Excellent

sword-blades and other articles of steel are made, and matchlocks and guns were formerly turned out. Minor industries include sugar-refining and the manufacture of papier-mâché and lacquer goods.

The State exports sugar, rice, and hides, and imports piece-goods, metals, and salt. Goats are also imported in large numbers for food. Rāmpur was once noted for its trade in horses and elephants, but this has declined.

The main line of the Oudh and Rohilkhand Railway crosses the State from south-east to north-west. No *kankar* is found, and communications by road were defective, but have been much improved. *Kankar* is now imported and mixed with stone brought from the Bhābar. About 33 miles of metalled roads are maintained in and near Rāmpur city by the State, and the British Government repairs two metalled roads, one passing from Morādābād to Bareilly and the other towards Nainī Tāl. There are also 223 miles of unmetalled roads. Avenues of trees are kept up on 196 miles.

Famine.

Generally speaking the State has suffered little from famine. A severe visitation is recorded in 1813, when corpses were daily seen in the streets. In 1877 famine would have been severely felt, but relief works were opened and alms were freely given to the aged and infirm. In 1896 extensive public works were started, and a large quantity of grain was purchased and sold by the State below market rates.

Administration.

The Commissioner of the Bareilly Division is Political Agent to the Lieutenant-Governor of the United Provinces for Rāmpur. Since the present Nawāb was invested with full powers, the services of a native official of the United Provinces have been lent to the State. This officer is called the Minister, or *Madār-ul-mahām*, and various departments are controlled by him subject to the direction of the Nawāb. The principal executive officials are the chief secretary, the home secretary, the legal remembrancer, and the *Dīwān-i-sadr*.

In 1902 a legislative committee was formed, consisting of members of the ruling family, officials, and leading residents in Rāmpur city. The Minister presides over the committee, and the regulations framed are published for criticism. Codes dealing with rent and revenue law had been issued previously, and the chief measures so far dealt with by the committee have been concerned with the municipality of Rāmpur and registration.

Each *tahsīl* is in charge of a *tahsīldar*, who has jurisdiction in rent, revenue, and civil cases, and is also a magistrate with powers corresponding to those of a magistrate of the second class in British territory. Appeals in rent and revenue cases lie to the Nāzim. Jurisdiction in civil cases is limited to suits relating to movable property not exceed-

ing Rs. 1,000. Suits up to Rs. 10,000 are heard by the *Mufti Dīwāni* or civil court at Rāmpur. More important cases and appeals in civil suits from the orders of *tahsīldārs* and the *Mufti Dīwāni* are decided by the District Judge. There is also a Court of Small Causes at Rāmpur. Magisterial powers are vested in a bench and in several special magistrates. The Chief Magistrate has powers of imprisonment up to three years, the Sessions Judge up to five years, the Minister up to ten years, while sentences of life imprisonment or death require the sanction of the Nawāb. Appeals from the orders of subordinate magistrates lie to the court of the Chief Magistrate and then to the Sessions Judge. All cases, whether civil, criminal, or revenue, are further appealable to the Minister, and finally to the Nawāb.

The land revenue and total revenue of the State for a series of years is shown below, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	15,58	19,58	18,36	19,19
Total revenue . .	15,87	30,67	34,33	35,38

Apart from land revenue, the chief items in 1903-4 were: interest on Government promissory notes (6·2 lakhs), cesses (2·4 lakhs), miscellaneous (2·5 lakhs), and irrigation (Rs. 49,000). The expenditure included: privy purse (4 lakhs), public works (5 lakhs), army (4·6 lakhs), pensions (3·4 lakhs), land administration (1·6 lakhs), and police (1·6 lakhs).

Property in land is not recognized in the greater part of the State. The rights of landholders in the area ceded by the British after the Mutiny were maintained; but in the case of 28 villages out of 146, the proprietary right has since been purchased by the State. There is thus no distinction between rent and land revenue, except in the remaining ceded villages. Collections are made through lessees or farmers, who receive leases for ten years or even longer. Leases are sold by auction; but the improvement of records and the establishment of a settlement department have materially facilitated the fixing of suitable amounts. Lessees are liable to a penalty in case of a decrease in cultivation. The cultivators acquire occupancy rights as in the Province of Agra (*see* UNITED PROVINCES), but after a period of sixteen years instead of twelve. The minimum term for new tenants has been fixed at five years. A complete survey of the State was made in 1890.

Liquor is made within the State by licensed contractors, to whom the right of manufacture and vend is sold by public auction, the receipts in 1903-4 being Rs. 41,000. Opium is sold to the State by the British Government at cost price up to 14½ cwt. annually, and at the rate fixed for sale to licensed vendors in Morādābād District for

any amount in excess of $14\frac{1}{2}$ cwt. It is retailed at the rates prevalent in adjacent British Districts. The right to sell hemp drugs is farmed by auction. *Charas* is imported direct from the Punjab and *bhang* from the United Provinces. The profit on opium and drugs in 1903-4 amounted to Rs. 18,000. Other items of miscellaneous revenue included *chaukīdāri* cess (Rs. 65,000), stamps (Rs. 41,000), salt and saltpetre (Rs. 15,000), tax on sugar-mills (Rs. 8,000), and registration (Rs. 9,000).

The only town under municipal administration is RĀMPUR CITY. The municipal commissioners are elected.

Public works are in charge of a European Chief Engineer, formerly in British service. The chief public buildings are at Rāmpur city. Substantial offices have been constructed at the *tahsīl* head-quarters, and the roads, bridges, and canals are well maintained.

The State maintains three squadrons of cavalry, of which two squadrons (317 strong) are Imperial Service Lancers. The local forces include 1,900 infantry, and 206 artillery with 23 guns.

The police force is organized on the system in the United Provinces. The Superintendent has an Assistant, and a force of 2 inspectors, 101 subordinate officers, and 409 constables, distributed in 12 police stations and 7 outposts. There are also 149 municipal and road police, and 1,281 village police. In 1904 the jail contained a daily average of 494 prisoners.

The State is backward as regards literacy, and in 1901 only 1·4 per cent. of the population (2·5 males and 0·1 females) could read and write. During the last few years, however, considerable attention has been devoted to education. The number of schools increased from 10 with 316 pupils in 1880-1 to 104 with 3,741 pupils in 1900-1. By 1903-4 the number of schools had further risen to 128, with 4,424 pupils, of whom 150 were girls, in addition to 20 private schools attended by 850 pupils. A celebrated Arabic college, with 400 students, which is maintained by the State, attracts students from all parts of India and even from Central Asia. The principal school for English education at Rāmpur city has 332 pupils. There is also an industrial school at Rāmpur. Of the total number of pupils, only 777 are in secondary classes. The expenditure on education in 1903-4 was Rs. 53,000, of which Rs. 18,000 was derived from a special cess.

There are 15 hospitals and dispensaries, with accommodation for 200 in-patients. In 1903-4 the number of cases treated was 186,000, including 951 in-patients, and 3,616 operations were performed. The expenditure, including the cost of sanitation, amounted to Rs. 47,000. Hospitals exist for treatment by both European and indigenous methods.

About 11,000 persons were vaccinated in 1903-4, showing a proportion of 21 per 1,000 of population. Vaccination is compulsory in Rāmpur city.

[*State Gazetteer*, 1883 (under revision); *Annual Administration Reports*.]

Rāmpur City.—Capital of the State of Rāmpur, United Provinces, situated in 28° 49′ N. and 79° 2′ E., on the left bank of the Kosi or Kosillā, on a road from Morādābād to Bareilly and on the Oudh and Rohilkhand Railway, 851 miles by rail from Calcutta and 1,070 from Bombay. Population is increasing slowly but steadily. The numbers at the three enumerations were as follows: (1881) 74,250, (1891) 76,733, and (1901) 78,758. In 1901 the population included 58,870 Musalmāns and 17,371 Hindus. Rāmpur first became of notice as the residence of Faiz-ullah Khān, younger son of Alī Muhammad. For a time it bore the name Mustafābād. It is enclosed by a broad, dense, bamboo hedge, about six miles in circumference, which was formerly pierced by only eight openings and formed a strong defence. Within recent years clearings have been made in two places. In the centre of the city stands the new fort, surrounded by a wall 5,000 feet in circuit. It is built entirely of brick and is entered by two lofty gateways. The interior of the fort is a large open space, containing palaces and other buildings. A fine library contains an exceptionally valuable collection of manuscripts. West of the fort are the public offices, in an imposing range of buildings completed in 1892. The large Jāma Masjid was built by Nawāb Kalb Alī Khān at a cost of 3 lakhs. Other buildings for the use of the Nawāb and his family include the Khās Bāgh palace, the Khusrū Bāgh palace, and commodious stables for horses, camels, and elephants. The chief public buildings are the jail, police station, high school, *tahsīlī*, and male and female dispensaries. Houses are maintained for the European officials outside the city, and the cantonments lie beyond these.

Municipal administration was introduced in 1890. Up to 1903 the only income raised by specific taxation consisted of a tax for watch and ward, which brought in about Rs. 4,000 or Rs. 5,000. Octroi has now been introduced. In 1903-4 the expenditure was Rs. 61,000, including public works (Rs. 20,000), conservancy (Rs. 18,000), and lighting (Rs. 13,000). The city produces pottery, damask, sword-blades, and cutlery, and is the chief trading centre in the State. It is also the chief educational centre, and contains 43 schools with 2,254 pupils. The principal institutions are the high school, where English education is provided, a technical school with 100 pupils, and an Arabic college. There are five girls' schools with 130 pupils.

Rāmpur Town (1).—Capital of the Bashahr State, Punjab, situated in 31° 27′ N. and 77° 40′ E. Population (1901), 1,157. It stands at

the base of a lofty mountain, overhanging the left bank of the Sutlej, 138 feet above the stream, and 3,300 feet above sea-level. Cliffs surround the town and confine the air, so that during summer the radiation from the rocks renders the heat intolerable. The houses rise in tiers, and many of them being built of stone suffered seriously from the earthquake in 1905. The town is famous for its fine shawls, the well-known Rāmpur *chādars*. The Rājā's palace, at the north-east corner of the town, consists of several buildings with carved wooden balconies exhibiting traces of Chinese style. The Gurkhas did much damage to the town and its trade during the period of their supremacy, but it has recovered under British protection. The Rājā resides at Rāmpur during the winter, and retires to the cooler station of Sarāhan for the hottest months.

Rāmpur Town (2).—Town in the Deoband *tahsīl* of Sahāranpur District, United Provinces, situated in 29° 48′ N. and 77° 28′ E., on the old road from Sahāranpur to Delhi. Population (1901), 7,945, the number of Hindus and Musalmāns being about equal. The town is said to have been founded by one Rājā Rām, and according to tradition it was captured by Sālār Masūd. There is a fine modern Jain temple, and also a tomb of a Muhammadan saint, Shaikh Ibrāhīm, near which a religious fair is held in June. The town is administered under Act XX of 1856, with an income of about Rs. 2,000. There is some trade in grain, and the town is noted for the manufacture of glass bangles.

Rāmpura State (1).—Petty State in MAHĪ KĀNTHA, Bombay.

Rāmpura State (2).—Petty State in REWĀ KĀNTHA, Bombay.

Rāmpura.—Old name of a district and town of the Tonk State, Rājputāna. *See* ALĪGARH.

Rāmpura.—Site of a celebrated Jain temple in Jodhpur State, Rājputāna. *See* RĀNAPUR.

Rāmpura-Bhānpura.—District of the Indore State, Central India, made by combining the old *zilas* of Rāmpura and Bhānpura. Though consisting of several detached blocks of territory, the district lies generally between 23° 54′ and 25° 7′ N. and 74° 57′ and 76° 36′ E., with an area of 2,123 square miles. The southern sections lie in the undulating Mālwā plateau region; but north of Rāmpura the district enters the hilly tract formed by the arm of the Vindhyas which strikes across east and west from Chitor towards Chanderī and forms the border of the table-land known as the Pathār.

The numerous remains scattered through this district point to its having been of much importance in former times. From the seventh to the ninth century it offered an asylum to the Buddhists, then fallen on evil days. At DHAMNĀR and Polādongar, and at Kholvi and other places close by, are the remains of their caves, both *chaitya* halls and

vihāras, all of late date, excavated in the laterite hills which rise abruptly from the plateau in this region. From the ninth to the fourteenth century it was part of the dominions of the Paramāra Rājputs, to whose rule the remains of numerous Jain temples testify. An inscription belonging to this dynasty was lately discovered at Morī village. In the fifteenth century it fell to the Muhammadan dynasty of MĀLWĀ, passing in the last years of their rule to the chiefs of Udaipur. Under Akbar the district lay partly in the *Sūbah* of Mālwā and partly in that of Ajmer. The Chandrāwat Thākurs, who claim descent from Chandra, second son of Rāhup, Rānā of Udaipur, settled at Antrī, which was granted to Sheo Singh Chandrāwat by Dilāwar Khān of Mālwā in the fifteenth century. They gradually acquired the surrounding country from the Bhīls. To this day the head of the family, on his succession, receives the *tīka* from the hand of a Bhīl descendant of the founder of Rāmpura. These Thākurs, though virtually independent, appear to have recognized to some extent the suzerainty of Udaipur, to which State the District certainly belonged in the seventeenth century. In 1729 it was given to Mādho Singh, second son of Sawai Jai Singh of Jaipur, from whom it passed to Holkar about 1752. The district was intimately associated with the fortunes of Jaswant Rao Holkar, who practically made Rāmpura his capital instead of Maheshwar.

The population decreased from 285,825 in 1891 to 156,021 in 1901, the density in the latter year being 73 persons per square mile. The district contains four towns, RĀMPURA (population, 8,273), BHĀNPURA (4,639), MANĀSA (4,589), SUNEL (3,655), with GAROT (3,456), the head-quarters; and 868 other villages. For administrative purposes it is divided into ten *parganas*, with head-quarters at Garot, Bhānpura, Chandwāsa, Zirāpur, Manāsa, Nandwai, Nārāyangarh, Rāmpura, Sunel, and Talen-latāheri. The district is in charge of a *Sūbah*, subordinate to whom are *naib-sūbahs* at Rāmpura and Bhānpura, and *amīns* in the remaining *parganas*. The total revenue is 6·9 lakhs.

The district is traversed by the metalled road from Nīmach to Manāsa, where it meets a branch road from Pīplia to Manāsa and continues to Rāmpura and Jhālrapatan in Rājputāna. Other roads are in course of construction; and the new Nāgda-Muttra branch of the Bombay, Baroda, and Central Indian Railway will pass through Shāmgarh, 6 miles from Garot.

Rāmpura Town.—Town in the Rāmpura-Bhānpura district of Indore State, Central India, situated in 24° 28′ N. and 75° 27′ E., 1,300 feet above sea-level, at the foot of the branch of the Vindhyan range which strikes across from west to east, north of Nīmach. Population (1901), 8,273. Rāmpura derives its name from a Bhīl chief, Rāma, who was killed by Thākur Sheo Singh, Chandrāwat of Antrī,

in the fifteenth century. As a sign of their former sovereignty, the descendants of Rāma still affix the *tīka* to the forehead of the chief of the Chandrāwat family. As the town stands at present, it is entirely Muhammadan, the wall and principal buildings being constructed in the Muhammadan style. The town long belonged to the chiefs of Udaipur, but was seized in 1567 by Akbar's general, Asaf Khān, and was made the chief town of the *sarkār* of Chitor in the *Sūbah* of Ajmer. During the Marāthā period it fell to Jaswant Rao Holkar, who made it one of his chief places of residence. The Chandrāwat Thākurs, who were the original holders, gave much trouble, until they were subdued by force and later on received a *jāgīr* in the neighbourhood, where they still reside. The town was formerly famous for its silver-work and manufacture of swords. Besides the district offices, it contains a State post office, a jail, a police station, a school, and a dispensary.

Rāmpur Boāliā Subdivision.—Head-quarters subdivision of Rājshāhi District, Eastern Bengal and Assam, lying between 24° 7′ and 24° 43′ N. and 88° 18′ and 88° 58′ E., with an area of 910 square miles. The subdivision consists of three portions. To the north-west is the Bārind, an elevated and undulating country; along the Padmā, which bounds it on the south, is a comparatively high and well-drained tract of sandy soil; and to the east the land is swampy and water-logged. The population was 563,936 in 1901, compared with 571,578 in 1891, the density being 620 persons per square mile. It contains one town, RĀMPUR BOĀLIĀ (population, 21,589), the head-quarters; and 2,271 villages. The chief centres of commerce are GODĀGĀRI, Rāmpur Boāliā, and Chārghāt on the Padmā, which conduct a thriving river trade. A large annual fair is held at KHETUR.

Rāmpur Boāliā Town.—Head-quarters of Rājshāhi District, Eastern Bengal and Assam, situated in 24° 22′ N. and 88° 36′ E., on the north bank of the Padmā. Population (1901), 21,589, of whom 51 per cent. are Hindus, 48 per cent. Musalmāns, and 1 per cent. Christians. Rāmpur Boāliā has long been an important centre of the silk industry. It was first selected by the Dutch in the early part of the eighteenth century for the establishment of a factory, and was subsequently for many years the head-quarters of an English Commercial Residency. The seat of administration was transferred here from Nator in 1825. The town is of modern growth, and is built for the most part on river alluvium. It was formerly liable to encroachment by the Padmā and suffered severely from inundations, from which it is now protected by an embankment running along the river bank for 6 miles. In recent years the river has receded from the town, and the considerable trade which it formerly enjoyed has declined; it has also suffered from the decay of the Bengal

indigo industry. Rāmpur Boāliā was constituted a municipality in 1876. The municipal income during the decade ending 1901–2 averaged Rs. 37,000, and the expenditure Rs. 31,000. In 1903–4 the income was Rs. 53,000, of which Rs. 12,000 was derived from a tax on persons (or property tax), Rs. 6,000 from a conservancy rate, and Rs. 7,000 from a tax on vehicles, while Rs. 13,000 represented a grant received for medical purposes. The expenditure in the same year was Rs. 50,000. There is a Central jail, with accommodation for 872 prisoners; the chief jail industries are the manufacture of mustard- and castor-oils, twine, *darīs*, and utensils of wood and bamboo. The Rājshāhi College is a first-class Government college teaching up to the M.A. standard, with a collegiate school, Oriental classes, and a law department. It possesses endowments to the extent of Rs. 10,000, in addition to which the Oriental classes are maintained from the Mohsin fund. Boarding-houses attached to the college accommodate 150 students. A sericultural school was opened in 1897, where practical training is given to sericultural overseers and the sons of silkworm-rearers.

Rāmpur Hāt Subdivision.—Northern subdivision of Bīrbhūm District, Bengal, lying between 23° 52′ and 24° 35′ N. and 87° 35′ and 88° 2′ E., with an area of 645 square miles. The subdivision is a long and somewhat narrow tract, running up between Murshidābād District and the Santāl Parganas. It possesses a fertile soil, except to the west, where there is a rolling country with tracts unfit for cultivation, and in the Murarai *thāna* to the north, where the land is comparatively infertile and there is a large proportion of uncultivable waste. The population in 1901 was 366,352, compared with 328,025 in 1891, the density being 568 persons per square mile. It contains 1,336 villages, of which RĀMPUR HĀT is the head-quarters; but no town.

Rāmpur Hāt Village.—Head-quarters of the subdivision of the same name in Bīrbhūm District, Bengal, situated in 24° 10′ N. and 87° 47′ E., on the East Indian Railway, 136 miles from Howrah. Population (1901), 3,908. A great part of the trade of the Santāl Parganas passes through the village. It contains the usual public offices; the sub-jail has accommodation for 18 prisoners.

Ramree Island (*Yan-bye*).—Island off the coast of Arakan, in Kyaukpyu District, Lower Burma, lying between 18° 43′ and 19° 38′ N. and 93° 30′ and 93° 56′ E. It is about 50 miles in length, and at its broadest part about 20 in breadth. The town of KYAUKPYU, the head-quarters of the District, is built at the northern end. The island lies parallel with the general line of the coast, namely, north-west and south-east, and is traversed by a range of hills bearing generally in the same direction. The population is composed chiefly of Arakanese.

Ramree Township (Burmese, *Yanbye*).—Township of Kyaukpyu District, Lower Burma, lying between 18° 43′ and 19° 22′ N. and 93° 40′ and 94° 2′ E., with an area of 449 square miles. It comprises the south-eastern half of the island of Ramree. The head-quarters are at Ramree (population, 2,540), near the eastern coast of the island. In 1901 it contained 247 villages and 46,058 inhabitants, or about 1,600 less than in 1891. A good deal of it is covered with low hills. The majority of the inhabitants are Buddhists. In 1903-4 the area cultivated was 55 square miles, paying Rs. 52,000 land revenue.

Rāmsanehīghāt. — South-eastern *tahsīl* of Bāra Bankī District, United Provinces, comprising the *parganas* of Daryābād, Sūrajpur, Rudaulī, Basorhī, and Mawai Maholārā, and lying between 26° 35′ and 27° 2′ N. and 81° 21′ and 81° 52′ E., with an area of 585 square miles. Population increased from 377,527 in 1891 to 387,670 in 1901. There are 616 villages and three towns, RUDAULĪ (population, 11,708) and DARYĀBĀD (5,928) being the largest. The demand for land revenue in 1903-4 was Rs. 6,35,000, and for cesses Rs. 99,000. The density of population, 662 persons per square mile, is about the District average. The *tahsīl* stretches from the Gogra on the north-east to the Gumtī on the south, the central portion being drained by the Kalyānī, a tributary of the Gumtī. It contains a number of *jhīls* or swamps, and drains have recently been made to improve water-logged areas. In 1903-4 the area under cultivation was 400 square miles, of which 144 were irrigated. Tanks or swamps supply about twice as large an area as wells.

Rām Talao (or Sunābdev).—Hot springs in the Shāhāda *tāluka* of West Khāndesh District, Bombay, 4 miles west of Unābdev, in a narrow gorge formed by two low projecting spurs of the Sātpurā Hills, and evidently supplied from the same source as Unābdev. In the woodland, 2 miles from the village of Wardi, close to Sunābdev, are traces of a large weir of great thickness and strength, which used to dam the hot water and form the Rām Talao. The water wells from the ground in one or two places at a temperature of about 90°, and seems to have no healing power. The bricks of the embankment are very large and strong, about a foot and a half long and from 2 to 4 inches thick. It is said that a Musalmān, in the pay of the owner of the village, who was in charge of Wardi, used the bricks in building a step-well. But from the day the well was opened a curse from the offended deity of the spring fell on the villagers. They were stricken with guinea-worm and fled from the village. After a time the village was again peopled, and the bricks were used in building a village office or *chāvdi.* No sooner was the office finished than the curse returned. Fever and dysentery broke out, and in two years the village was once more empty and has never since been inhabited. The new village

of Wardi lies outside the walls of the old village, where it is believed the offended deity of the pond still angrily guards what is left of his ancient bricks.

Rāmtek Tahsīl. — Northern *tahsīl* of Nāgpur District, Central Provinces, lying between 21° 5′ and 21° 44′ N. and 78° 55′ and 79° 35′ E., with an area of 1,129 square miles. The population in 1901 was 156,663, compared with 157,150 in 1891. The density is 139 persons per square mile. The *tahsīl* contains two towns, RĀMTEK (population, 8,732), the head-quarters, and KHĀPA (7,615); and 451 inhabited villages. Excluding 343 square miles of Government forest, 77 per cent. of the available area is occupied for cultivation. The cultivated area in 1903–4 was 544 square miles. The demand for land revenue in the same year was Rs. 2,27,000, and for cesses Rs. 23,000. The *tahsīl* contains a belt of hill and jungle at the foot of the Sātpurā range to the north, and in the south lie two fertile plains producing wheat and cotton respectively, which are divided by the Pench river.

Rāmtek Town.—Head-quarters of the *tahsīl* of the same name, Nāgpur District, Central Provinces, situated in 21° 24′ N. and 79° 20′ E., 24 miles north-east of Nāgpur city by road and 13 miles from Sālwa railway station. Population (1901), 8,732. The town lies round the foot of a detached hill forming the western extremity of the small Ambāgarh range. As is shown by its name ('the hill of Rāma' or Vishnu), it is a sacred place of the Hindus. On the hill, standing about 500 feet above the town, are a number of temples, which, owing to their many coats of whitewash, can be seen gleaming in the sun from a long distance. The principal temple is that of Rām Chandra, standing above the others in the inner citadel, which is protected by two lines of walls, both of recent origin, while a third line runs round the Ambāla tank at the foot of the hill. The tank is lined throughout with stone revetments and steps; it is said to be very deep, and fish abound in it. From the west end of the tank a long flight of steps leads up the hill, at the opposite end of which another flight descends to the town of Rāmtek. About 27 tanks in all have been constructed round the town. Rāmtek was constituted a municipality in 1867. The municipal receipts during the decade ending 1901 averaged Rs. 8,400. In 1903–4 the receipts were Rs. 10,000, derived mainly from octroi. A large religious fair is held here in December and a smaller one in March. The December fair lasts for a fortnight, and a considerable amount of traffic in cloth and utensils takes place, dealers coming from Jubbulpore and Mandlā. A large area in the vicinity of the town is covered with betel-vine gardens. The variety called *kapūri* is chiefly grown, and is much esteemed locally. The importance of the town is now increasing, owing to the manganese

mines which are worked in the tract adjoining it. A weekly cattle market is held. The educational institutions comprise an English middle, girls', and branch schools, and a dispensary has also been established.

Rānāghāt Subdivision. — Southern subdivision of Nadiā District, Bengal, lying between 22° 53′ and 23° 20′ N. and 88° 20′ and 88° 45′ E., with an area of 427 square miles. The subdivision is a deltaic tract, bounded on the south-west by the Bhāgīrathi; it contains much jungle and numerous marshes and backwaters, and the whole tract is malarious and unhealthy. The population declined from 230,036 in 1891 to 217,077 in 1901, the density in the latter year being 508 persons per square mile; the decrease (5·63 per cent.) was due to the prevalence of malarial affections. The subdivision contains four towns, RĀNĀGHĀT (population, 8,744), the head-quarters, SĀNTIPUR (26,898), CHĀKDAHA (5,482), and BIRNAGAR (3,124); and 568 villages.

Rānāghāt Town.—Head-quarters of the subdivision of the same name in Nadiā District, Bengal, situated in 23° 11′ N. and 88° 34′ E., on the Churnī river. Population (1901), 8,744. Rānāghāt is an important station on the Eastern Bengal State Railway, and a terminus of the light railway which runs to Krishnagar. Rānāghāt was constituted a municipality in 1864. The income and expenditure during the decade ending 1901–2 averaged Rs. 9,000. In 1903–4 the income was Rs. 13,000, including Rs. 6,000 derived from a tax on persons and lands, and Rs. 4,000 from a conservancy rate; and the expenditure was Rs. 12,000. The town contains the usual public offices; the sub-jail has accommodation for 12 prisoners. Rānāghāt is an important trade centre, and the head-quarters of a Medical Mission started in 1893. Several dispensaries are maintained here and at out-stations, and are very largely attended.

Rānāhu.—Town in the Khipro *tāluka* of Thar and Pārkar District, Sind, situated in 20° 55′ N. and 69° 52′ E. Population (1901), 5,187. It is a place of no importance, possesses no trade, and, in consequence of successive famines, a decreasing population.

Rānapur (or Rāmpura).—Site of a celebrated Jain temple in the Desuri district of the State of Jodhpur, Rājputāna, situated in 25° 7′ N. and 73° 28′ E., about 88 miles south-east of Jodhpur city, and about 14 miles east by south-east of Fālna station on the Rājputāna-Mālwā Railway. The temple was built in the time of Rānā Kūmbha of Mewār (fifteenth century), in a lonely and deserted glen running into the western slopes of the Arāvallis, and is still nearly perfect. It is most complicated and extensive in design, covering a platform measuring 200 by 225 feet, exclusive of the projections on each face. In the centre stands the great shrine, not, however, occupied as usual by one cell but by four, in each of which is placed a statue of Adināth,

the first of the Jain saints. On a second storey are four similar niches opening on the terraced roofs of the building. Near the four angles of the court are four smaller shrines, and around them, or on each side of them, are 20 domes supported by about 420 columns. The central dome in each group is three storeys in height and towers over the others; and that facing the principal entrance is supported by the very unusual number of 16 columns and is 36 feet in diameter, the others being only 24 feet. Light is admitted to the building by four uncovered courts, and the whole is surrounded by a range of cells, each of which has a pyramidal roof. Internally the forest of columns produces endless variety of perspective with play of light and shade. A wonderful effect also results from the number of cells which, besides being of varied form, are more or less adorned with carvings.

'The immense number of parts in the building and their general smallness prevent its laying claim to anything like architectural grandeur; but their variety, their beauty of detail—no two pillars in the whole building being exactly alike—the grace with which they are arranged, the tasteful admixture of domes of different heights with flat ceilings, and the mode in which the light is introduced, combine to produce an excellent effect.'

Imbedded in a pillar at the entrance to the temple is a marble slab with an inscription recording the rulers of Mewār from Bāpā Rāwal to Rānā Kūmbha.

[J. Fergusson, *History of Indian and Eastern Architecture*, pp. 240–2 (1899).]

Ranāsan.—Petty State in MAHĪ KĀNTHA, Bombay.

Rānchī District.—District in the Chotā Nāgpur Division of Bengal, lying between 22° 20′ and 23° 43′ N. and 84° 0′ and 85° 54′ E. It is the largest District in Bengal, having an area of 7,128 square miles. It is bounded on the north by the Districts of Palāmau and Hazāribāgh; on the east by Mānbhūm; on the south by Singhbhūm and the Tributary State of Gāngpur; and on the west by the Jashpur and Surgujā States and Palāmau District.

Physical aspects.

The District consists broadly of two plateaux, the higher of which, on its northern and western sides, has an elevation of about 2,000 feet and covers about two-thirds of its area, while the lower plateau lies on the extreme eastern and southern borders and has only half this elevation. The *ghāts* or passes which connect the two are for the most part steep and rugged, and are covered with a fair growth of timber. In the north-western corner of the District are situated several lofty ranges of hills, some of them with level tops, locally called *pāts*, a few having an area of several square miles, but sparsely inhabited and with very little cultivation. The highest point in the District is the Sāru hill,

about 20 miles west of the town of Lohārdagā, which rises to 3,615 feet above sea-level. With the exception of the hills in the north-west and of a lofty range which divides the main portion of the lower plateau from the secluded valley of Sonapet in the south-eastern corner of the District, the plateaux themselves are flat and undulating, with numerous small hills. The District possesses varied beauties of scenery, especially in the west and south, where bare and rugged rocks alternate with richly wooded hills enclosing secluded and peaceful valleys. Not least among the scenic features are the various waterfalls, any of which would in a Western country be regarded as worthy of a visit even from a distance. The finest is the Hundrughāgh on the Subarnarekhā river about 30 miles east of Rānchī town; but several others are hardly inferior, e.g. the Dasamghāgh near Būndu, two Peruāghāghs (one in Kochedegā and one in the Basiā *thāna*), so called because of the hundreds of wild pigeons which nest in the crevices of the rocks round about all these falls, and the beautiful though almost unknown fall of the Sankh river (known as the Sadnīghāgh from the adjacent village of Sadnī Konā), where it drops from the lofty Rājdera plateau on its way to the plains of Barwe below. The river system is complex, and the various watersheds scatter their rivers in widely divergent directions. Near the village of Nagrā, 12 miles west and south-west of Rānchī town, rise the SUBARNAREKHĀ (the 'golden line or thread') and the South Koel (a very common name for rivers in Chotā Nāgpur, but apparently without any specific meaning); the former on the south side and the latter on the north. The Subarnarekhā, of which the chief affluents in this District are the Kokro, the Kānchī, and the Karkārī, flows at first in a north-easterly direction, passes the town of Rānchī at a distance of about 2 miles, and eventually running due east flows through a narrow and picturesque valley along the Hazāribāgh border into the District of Mānbhūm. The South Koel, on the other hand, starting in a north-westerly direction, runs near Lohārdagā, and turning south again, flows across the District from north-west to south-east into Gāngpur State and there joins the Sankh, which, rising in the extreme west of the District, also runs south-east, the united stream being known as the BRĀHMANĪ. Within almost a few yards of the Sankh rises another Koel, known as the North Koel; but this stream flows to the north and eventually, after traversing Palāmau District, joins the Son under the plateau of Rohtās. None of these rivers contains more than a few inches of water during the dry season; but in the rains they come down in sudden and violent freshes, which for a few hours, or it may be even days, render them wellnigh impassable. Lakes are conspicuous by their absence, the explanation being that the granite which forms the chief geological feature of the District is soft and soon worn away.

The geological formations are the Archaean and the Gondwāna. Of the latter, all that is included within the District is a small strip along the southern edge of the Karanpurā coal-fields. The rock occupying by far the greatest area is gneiss of the kind known as Bengal gneiss, which is remarkable for the great variety of its component crystalline rocks. The south of the District includes a portion of the auriferous schists of Chotā Nāgpur. These form a highly altered sedimentary and volcanic series, consisting of quartzites, quartzitic sandstones, slates of various kinds, sometimes shaly, hornblendic, mica, talcose, and chloritic schists. Like the Dhārwār schists of Southern India, which they resemble, they are traversed by auriferous quartz veins. A gigantic intrusion of igneous basic diorite runs through the schists from east to west, forming a lofty range of hills which culminate in the peak of Dalmā in Mānbhūm, whence the name Dalmā trap has been derived. In the neighbourhood of this intrusion the schists are more metamorphosed and contain a larger infusion of gold [1].

The narrower valleys are often terraced for rice cultivation, and the rice-fields and their margins abound in marsh and water plants. The surface of the plateau land between the valleys, where level, is often bare and rocky, but where undulating, is usually clothed with a dense scrub jungle, in which *Dendrocalamus strictus* is prominent. The steep slopes of the *ghāts* are covered with a dense forest mixed with climbers. *Sāl* (*Shorea robusta*) is gregarious; among the other noteworthy trees are species of *Buchanania*, *Semecarpus*, *Terminalia*, *Cedrela*, *Cassia*, *Butea*, *Bauhinia*, *Acacia*, and *Adina*, which these forests share with the similar forests on the Lower Himālayan slopes. Mixed with these, however, are a number of characteristically Central India trees and shrubs, such as *Cochlospermum*, *Soymida*, *Boswellia*, *Hardwickia*, and *Bassia*, which do not cross the Gangetic plain. One of the features of the upper edge of the *ghāts* is a dwarf palm, *Phoenix acaulis*; striking too is the wealth of scarlet blossom in the hot season produced by the abundance of *Butea frondosa* and *B. superba*, and the mass of white flowers along the *ghāts* in November displayed by the convolvulaceous climber *Porana paniculata*. The jungles also contain a large variety of tree and ground orchids.

The Indian bison (*gaur*) is probably extinct as an inhabitant of the District, but a wanderer from Gāngpur State or Palāmau may occasionally even now be encountered near the boundary. Tigers, leopards, hyenas, bears, and an occasional wolf are to be found in all jungly and mountainous parts, while *sāmbar* (*Cervus unicolor*), *nīlgai* (*Boselaphus tragocamelus*), antelope, *chītal* or spotted deer, and the little *kotra* or

[1] The gold-bearing rocks of Chotā Nāgpur have been described by S. M. Maclaren in *Records, Geological Survey of India*, vol. xxxi, pt. ii.

barking-deer (*Cervulus muntjac*) are common in all the larger jungles.

The temperature is moderate, except during the hot months of April, May, and June, when the westerly winds from Central India cause high temperature with low humidity. The mean temperature increases from 76° in March to 85° in April and 88° in May, the mean maximum from 88° in March to 100° in May, and the mean minimum from 63° to 76°. During these months humidity is lower in Chotā Nāgpur than in any other part of Bengal, falling in Rānchī to 43 per cent. in March. During the cold season the mean temperature is 63° and the mean minimum 51°. The annual rainfall averages 52 inches, of which 8·1 inches fall in June, 13·6 in July, 13·7 in August, and 8·8 in September.

History.

The history of Chotā Nāgpur divides itself into four well-marked periods. During the first the country was in the undisturbed possession of the Mundā and Oraon races, who may be presumed to have reclaimed it from a state of uncultivated forest; it was at that time called Jhārkand or the 'forest tract.' The second period embraces the subjection of the aboriginal village communities to the chiefs of the Nāgbansi family. The birth at Sūtiāmba, near Pithauriā, 10 miles north of Rānchī town, of the first of this race, Phanī Mukuta Rai, the son of the Brāhman's daughter Pāratī and the snake god, Pundarīka Nāg, is a well-known incident of mythology. Whatever the real origin of the family, it is certain that at some unknown time the aborigines of Chotā Nāgpur, either by voluntary submission or by force of arms, came under the sway of the Nāgbansi Rājās, and so continued until they in turn became subject to the Musalmān rulers of Upper India. This event, which may be taken as inaugurating the third period in the history of Chotā Nāgpur, took place in the year 1585, when Akbar sent a force which subdued the Rājā of Kokrah, or Chotā Nāgpur proper, then celebrated for the diamonds found in its rivers; the name still survives as that of the most important *pargana* of Rānchī District. Musalmān rule appears for a long time to have been of a nominal description, consisting of an occasional raid by a Muhammadan force from South Bihār and the carrying off of a small tribute, usually in the shape of a few diamonds from the Sankh river. Jahāngīr sent a large force under Ibrāhīm Khān, governor of Bihār, and carried the forty-fifth Kokrah chief, Durjan Sāl, captive to Delhi and thence to Gwalior, where he was detained for twelve years. He was eventually reinstated at Kokrah with a fixed tribute; and it would appear that the relations thus formed continued on a more settled basis until the depredations of the Marāthās in the eighteenth century led, with other causes, to the cession of the Chotā Nāgpur country to the British in 1765. A settle-

ment was arrived at with the Nāgbansi Mahārājā in 1772; but after a trial of administration in which he was found wanting, the country now included in Rānchī District was, along with other adjoining territories, placed under the charge of the Magistrate of Rāmgarh in Hazāribāgh District. This was in 1816 or 1817. Meanwhile the gulf between the foreign landlords and their despised aboriginal tenants had begun to make itself felt. A large proportion of the country had passed from the head family, either by way of maintenance grants (*khorposh*) to younger branches or of service grants (*jāgīr*) to Brāhmans and others, many of whom had no sympathy with the aborigines and only sought to wring from them as much as possible. The result was a seething discontent among the Mundās and Oraons, which manifested itself in successive risings in the years 1811, 1820, and 1831. In the last year the revolt assumed very serious proportions, and was not suppressed without some fighting and the aid of three columns of troops, including a strong body of cavalry. It had long become apparent that the control from Rāmgarh, which was situated outside the southern plateau and in reality formed part of a more northern administrative system, was ineffective; and in 1833 Chotā Nāgpur proper with Dhalbhūm was formed into a separate province, known as the South-Western Frontier Agency, and placed in the immediate charge of an Agent to the Governor-General aided by a Senior and Junior Assistant, the position of the former corresponding closely with that of the present Deputy-Commissioner of Rānchī. In 1854 the system of government was again altered, and Chotā Nāgpur was constituted a non-regulation province under a Commissioner. In the Mutiny of 1857 the head branch of the Chotā Nāgpur family held firm, though the Rāmgarh Battalion at Rānchī mutinied and several of the inferior branches of the Nāgbansis seceded. Chief among these in Rānchī District was the *zamīndār* of Barkāgarh, whose property was confiscated and now forms a valuable Government estate. The subsequent history of the District has been uneventful, with the exception of periodical manifestations of the discontent of the Mundā population in the south and south-east. This was fanned during the last fifteen years of the nineteenth century by the self-interested agitation of so-called *sardārs* or leaders, whose chief object has been to make a living for themselves at the expense of the people, and also by the misrepresentations of a certain section of the German missionaries. It culminated in a small rising in 1899 under one Birsā Mundā, who set himself up as a God-sent leader with miraculous powers. The movement was, however, wanting in dash and cohesion, and was suppressed without difficulty by the local authorities, the ringleader being captured, and ending his days from cholera in the Rānchī jail. When the South-Western Frontier Agency was established in 1833, the District, which was then

known as Lohārdagā, included the present District of Palāmau and had its head-quarters at Lohārdagā, 45 miles west of Rānchī. In 1840 the head-quarters were transferred to their present site, and in 1892 the subdivision of Palāmau with the Torī *pargana* was formed into a separate District.

Doisānagar, which lies about 40 miles to the west and south of Rānchī, contains the ruins of the palaces built in the last quarter of the eighteenth century by Mahārājā Rām Sahi Deo and his brother the Kuar Gokhal Nāth Sahi Deo, and also of some half-dozen temples erected for the worship of Mahādeo and Ganesh. The stronghold of the former Rājā of Jashpur, one of the old chiefs brought into subjection by the Mughals, is situated about 2 miles north of Getalsud in the Jashpur *pargana*. The only other relic worthy of note is the temple at CHUTIĀ, on the eastern outskirts of the town of Rānchī. Chokāhātu, or 'the place of mourning,' is a village in the south-west of the District famous for its large burial-ground, which is used by both Muhammadans and Mundās.

Population.

The recorded population of the present area rose from 813,328 in 1872 to 1,058,169 in 1881, to 1,128,885 in 1891, and to 1,187,925 in 1901. The large apparent increase in the first decade may be in part attributed to the imperfections of the first Census. The subsequent growth would have been greater but for the drain of cooly recruiting for the tea and other industries, coupled with a year of sharp scarcity just before the Census of 1901. The more jungly tracts are very malarious, but on the whole the climate compares favourably with that of other parts of Bengal. The principal statistics of the Census of 1901 are shown below:—

Subdivision.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Rānchī	3,506	3	2,016	753,236	215	+ 3·1	24,845
Gumla	3,622	1	1,157	434,689	120	+ 9·1	7,686
District total	7,128	4	3,173	1,187,925	167	+ 5·2	32,531

NOTE.—In 1905 a new subdivision, Khunti, with an area of 1,140 square miles, was constituted, and the area of the Rānchī subdivision was reduced to 2,366 square miles. The population of the Rānchī and Khunti subdivisions is 527,829 and 225,407 respectively.

The four towns are RĀNCHĪ the present, and LOHĀRDAGĀ the former head-quarters, BŪNDU, and PĀLKOT. The density of population declines steadily from the north-east to the west and south-west; the greatest growth has taken place along the south of the District. Emigration has for many years been very active. In 1897, 4,096 coolies were dispatched to the Assam tea gardens, in 1898, 4,329, and

in 1899, 3,244; in 1900, owing to a failure of the crops, the number rose to 6,307; but since then it has fallen to 2,750 in 1901, and to 1,799 in 1902. The recent diminution is due in part to the very much closer supervision over the operations of the recruiters provided by recent legislation.

There is also a large but unrecorded exodus to the tea gardens of Darjeeling and the Duārs, which are worked with free labour, and to the coal-mines of Mānbhūm and Burdwān; during the winter months many visit the Districts of Bengal proper to seek employment on earth-work and in harvesting the crops. The total number of emigrants at the time of the Census of 1901 was no less than 275,000, of whom 92,000 were in Assam and 80,000 in Jalpaigurī District. Hindī is spoken by 42½ per cent. of the population. The dialect most in vogue is a variety of Bhojpurī known as Nāgpuria, which has borrowed some of its grammatical forms from the adjoining Chhattīsgarhī dialect. Languages of the Mundā family are spoken by 30 per cent. of the population, the most common being Mundārī, which is the speech of 299,000 persons, and Khariā, which is spoken by 50,000. Kurukh or Oraon, a Dravidian language, was returned at the Census as the parent tongue of rather more than a quarter of the population; but as a matter of fact many of the Oraons have abandoned their tribal language in favour of a debased form of Hindī. Hindus number 474,540 persons (or 40 per cent. of the total); Animists, 546,415 (46 per cent.); Musalmāns, 41,972 (3½ per cent.); and Christians, 124,958 (10½ per cent.). Animism is the religion, if such it can be called, of the aboriginal tribes; but many such persons now claim to be Hindus, and the native Christians of Rānchī District have come almost entirely from their ranks.

Of aboriginal tribes, the most numerous are the ORAONS (279,000), MUNDĀS (236,000), and Khariās (41,000). The Oraons are found chiefly along the north and west, the Mundās in the east, and the Khariās in the south-west of the District. Among the Hindu castes, Kurmīs (49,000) and Ahīrs (Goālās) and Lohārs (each 37,000) are most largely represented; the last named probably include a large number of aboriginal blacksmiths. Agriculture supports 79 per cent. of the population, industries 11 per cent., commerce 0·6 per cent., and the professions 1·2 per cent.

Christians are more numerous than in any other Bengal District, and in fact number five-elevenths of the whole Christian population of Bengal and Eastern Bengal. Missionary effort commenced shortly before the middle of the nineteenth century, the converts consisting almost entirely of Oraons (61,000), Mundās (52,000), and Khariās (10,000). The German Evangelical Lutheran Mission was established in Rānchī in 1845, and was originally known as Gossner's Mission.

An unfortunate disagreement subsequently took place; and in 1869 it was split up into two sections, the one enrolling itself under the Society for the Propagation of the Gospel, and the other retaining the name of Gossner's Mission. The progress made during recent years has been remarkable, the number of converts having increased from 19,000 in 1891 to three times that number in 1901. The Mission now possesses 10 stations in the District; and the workers include 21 European missionaries, 19 native pastors, and 515 catechists, teachers, &c. The Church of England Mission, which had its origin from the split in Gossner's Mission, had in 1901 a community of 13,000, compared with 10,000 in 1891. The Roman Catholic Mission is an offshoot from a mission founded at Singhbhūm in 1869, which was extended to Rānchī in 1874. It has now 11 stations in the District, and its converts in 1901 numbered 54,000, or about three-fifths of the total number of Roman Catholics in Bengal and Eastern Bengal. The Dublin University Mission, which commenced work at Hazāribāgh in 1892, opened a branch at Rānchī in 1901.

Agriculture.

The greater part of the District is an undulating table-land, but towards the west and south the surface becomes more broken; the hills are steeper, and the valleys are replaced by ravines where no crops can be grown. Cultivable land ordinarily falls into two main classes: *don* or levelled and embanked lowlands, subdivided according to the amount of moisture which they naturally retain; and *tānr* or uplands, which include alike the *bāri* or homestead lands round the village sites and the stony and infertile lands on the higher ground. Generally speaking, the low embanked lands are entirely devoted to rice, while on the uplands rice is also grown, but in company with a variety of other crops.

The chief agricultural statistics for 1903-4 are shown below, areas being in square miles:—

Subdivision.	Total.	Cultivated.	Cultivable waste.	Forests.
Rānchī . .	3,506	1,254	537	2
Gumla . .	3,622	915	659	...
Total	7,128	2,169	1,196	2

NOTE.—In 1905 a new subdivision, with head-quarters at Khunti, was constituted from a portion of the Rānchī subdivision. The areas of the Rānchī and Khunti subdivisions are 2,366 and 1,140 square miles respectively.

The chief staple is rice, grown on 1,914 square miles, the upland rice being invariably sown broadcast, while the lowland rice is either sown broadcast or transplanted. Other important cereals are *gondli* or the small millet (*Panicum miliare*) and *maruā*; pulses, especially *urd*, and oilseeds, chiefly *sarguja* and mustard, are also extensively grown.

The *bhadoi* harvest, reaped in August and September, includes the upland rice crops, millets, and pulses; and the *kharīf*, reaped in the latter part of November, December, and January, includes the whole of the rice crops on the embanked lands, *sarguja*, and one of the varieties of *urd* pulse. Though in area there is apparently not much difference between these harvests, the latter is by far the more important of the two owing to the weight of rice taken off the *don* lands. The *rabi* harvest in February is relatively very small, the only important crops being *rahar* (*Cajanus indicus*) and *sarson*. Tea was at one time somewhat extensively cultivated, but the soil and the rainfall do not appear to be suited to the production of the finer varieties, and the industry has of late years sensibly declined. In 1903 there were 21 gardens with 2,256 acres under tea and an out-turn of 306,000 lb. Market-gardening is carried on to a small extent in the neighbourhood of the large towns by immigrant Koiris from Bihār.

The low land most suitable for embanked rice cultivation has already been taken up, and as the cost of levelling and embanking the higher ground is considerable, the extension of cultivation proceeds but slowly. The native cultivator employs primitive methods and displays no interest in the introduction of improvements. In Government estates experiments have been made with improved seeds, especially of the potato plant, and on the Getalsud tea estate some *tānr* land has been put under the *sisal* aloe and experiments in fibre extraction are being made. The construction of tanks for irrigation purposes by erecting dams across the slopes, though they would be cheap and effective, has been but little resorted to, except at Kolebīra and in a few villages in Government estates. Cow-dung is used for manuring lowland rice, and ashes for the fertilization of the uplands, especially for cotton. In the lean years 1897 and 1900 advances of Rs. 20,000 were made under the Land Improvement Loans Act, and of Rs. 1,43,000 under the Agriculturists' Loans Act.

No good cattle are bred. Pigs and fowls are largely kept by the aboriginal inhabitants, especially in the remoter parts and on the higher plateaux.

Extensive jungles under private ownership exist in the north-west and south, but the only Government forest is a small Reserve covering 2 square miles near Rānchī town.

The Sonapet area in the south-east corner of the District, which is almost entirely surrounded by the Dalmā trap, has long been known to contain gold; but, from the recent investigations of experts, it appears very doubtful whether its extraction either from the alluvium or from any of the quartz veins can ever prove remunerative. Iron ore of an inferior quality abounds throughout the District, and is smelted by the old native process and used for the manufacture of agricultural imple-

ments, &c. In the south-east of the Tamār *pargana* a soft kind of steatite allied to soapstone is dug out of small mines and converted into various domestic utensils. The mines go down in a slanting direction, and in one or two instances a depth of about 150 feet has been reached. The harder and tougher kinds of trap make good road-metal, while the softer and more workable forms of granite are of easy access and are much used for the construction of piers and foundations of bridges and other buildings. Mica is found in several localities, especially near Lohārdagā and elsewhere in the north of the District, but not in sufficient quantities or of a quality good enough to make it worth mining.

Trade and communications.

The chief industry is the manufacture of shellac. The lac insect is bred chiefly on the *kusum* (*Schleichera trijuga*) and *palās* (*Butea frondosa*) trees, and shellac is manufactured at some half-dozen factories, the largest being at Rānchī and Būndu. Brass and bell-metal articles are manufactured at Lohārdagā, and coarse cotton cloths are woven throughout the District.

The chief exports are rice, oilseeds, hides, lac, and tea. Myrabolams (*Terminalia Chebula*) are also extensively exported. The chief imports are wheat, tobacco, sugar, *gur*, salt, piece-goods, blankets, and kerosene oil. The principal places of trade are Rānchī, Lohārdagā, Būndu, Pālkot, and Gobindpur. In the west of the District, owing to the frequent *ghāts* with only bridle-paths across them, the articles of commerce are carried by strings of pack-bullocks, of which great numbers may be met after the crop-cutting season, passing in or out of Barwe to trade either in Rānchī or in the Jashpur and Surgujā States.

No railways enter the District, and practically the whole of the external trade is carried along the cart-road which connects Rānchī town with Purūlia on the Bengal-Nāgpur Railway. This road, and those to Chaibāsa and Hazāribāgh, with an aggregate length in the District of about 100 miles, are maintained by Government. There are also 919 miles of road (including 170 miles of village tracks) maintained by the District board. The most important of these are a gravelled road, 52 miles in length, connecting Rānchī with Lohārdagā, and unmetalled roads from Rānchī to Būndu and Tamār, Pālkot, Bero, and Kurdeg, and Sesai, whence one branch runs to Lohārdagā and another through Gumla. There is a ferry over the Koel river, where it crosses the road to the new subdivisional head-quarters at Gumla, but as a rule ferries are little used, as the rivers, when not easily fordable, become furious hill torrents which it is dangerous to cross.

Famine.

The District was affected by the famine of 1874, and the harvests were very deficient in 1891, 1895, 1896, and 1899; but it was only on the last two occasions that relief operations were found necessary. In 1897 the test works at first failed

to attract labour, and it was hoped for a time that the people would be able to surmount their trouble without help from Government. Distress subsequently manifested itself in the centre of the District, but relief operations were at once undertaken and the acute stage was of very short duration. Altogether 52,710 persons found employment in relief works, and gratuitous relief was given to 153,200 persons, the expenditure from public funds being Rs. 18,000. The District was, however, never officially declared affected, and relief operations were carried on only for a few months on a small scale. In 1900 relief works were opened in ample time; the attendance on them was far higher than in the previous famine; and the distress that would otherwise have ensued was thus to a great extent averted. The area affected was 3,052 square miles, with a population of about 493,000 persons; and in all, 1,134,287 persons (in terms of one day) received relief in return for work and 516,400 persons gratuitously, the expenditure from public funds being 2·3 lakhs. The distress was most acute in the centre and west of the District, but, as far as is known, there were no deaths from starvation.

Administration.

In 1902 the District was divided into two subdivisions with head-quarters at Rānchī and Gumla, and in 1905 a third subdivision was formed with head-quarters at Khunti. The staff at head-quarters subordinate to the Deputy-Commissioner consists of a Joint and five Deputy-Magistrate-Collectors, while the Gumla subdivision is in charge of a Joint, and the Khunti subdivision of a Deputy-Magistrate-Collector.

The chief court of the District, both civil and criminal, is that of the Judicial Commissioner, who is the District and Sessions Judge. The Deputy-Commissioner has special powers under section 34 of the Code of Criminal Procedure to try all cases not punishable with death. The civil courts include those of the Deputy-Collectors who try all original rent suits, of two Munsifs at Rānchī and Gumla who have also the powers of a Deputy-Collector for the trial of rent suits, and of a special Subordinate Judge for the combined Districts of Hazāribāgh and Rānchī. The most common crimes are burglaries and those which arise from disputes about land; the latter are very frequent owing to the unsettled nature of rights and areas, the ignorance of the common people, and the greed of indifferent and petty landlords. Murders are unusually frequent, as the aboriginal inhabitants are heavy drinkers, believe in witchcraft, and have small regard for life.

The country was originally in the sole possession of the aboriginal settlers, whose villages were divided into groups or *pāras* each under its *mānki* or chief. These chiefs were subsequently brought under the domination of the Nāgbansi Rājās, who became Hinduized and by degrees lost sympathy with their despised non-Hindu subjects. The

Mahārājās in course of time made large grants of land for the maintenance of their relatives, military supporters, and political or domestic favourites, who fell into financial difficulties and admitted the *dikku* or alien adventurer to prey upon the land. To one or other of these stages belong all the tenures of the District. They are very numerous, but can be generally classified under four heads: the Rāj or Chotā Nāgpur estate; tenures dependent on the Mahārājās and held by subordinate Rājās; maintenance and service tenures; and cultivating tenures. The second and third classes of tenures are held on a system of succession peculiar to Chotā Nāgpur, known as *putra-putrādik*, which renders them liable to resumption in case of failure of male heirs to the original grantee. As the Chotā Nāgpur Rāj follows the custom of primogeniture, maintenance grants are given to the near relatives of the Mahārājā. The chief service grants are: *bāraik*, given for military service and the upkeep of a militia; *bhuiyā*, a similar tenure found in the south-west of the District; *ohdur*, for work done as *dīwān*; *ghātwāl*, for keeping safe the passes; and a variety of revenue-free grants, *brāhmottar* or grants to Brāhmans, and *debottar* or lands set apart for the service of idols. Cultivating tenures may be classified as privileged holdings, ordinary *ryoti* land known as *rajhas*, and proprietors' private land or *manjhihas*. The privileged holdings are those which were in the cultivation of the aboriginal settlers before the advent of the Hindu landlords and the importation of cultivators alien to the village. They include *bhuinharī*, with the cognate tenures known as *bhutkhetā* (land set aside for support of devil propitiation), *dālikatāri*, *pahnai*, and *mahati*. The last two are lands held by the *pahn* and *māhato*, the village priest and headman. In some parts the privileged lands of the old settlers are known as *khuntkhatti*, and include the *pahn khunt*, *mundā khunt*, and the *māhato khunt*. The *mundā* is the village chief responsible for the payment of the *khuntkhatti* rents to the *mānki* of the circle of the villages, while the *māhato*, a later importation, is the headman from the point of view of the Hindu landlord, whose interests he guards by assisting in the realization of the rent of the *rajhas* and cultivation of the *manjhihas* lands. These latter include *bethkhetā*, or land set aside for the provision of labour for cultivation of the remaining private lands. As in other parts of Bengal, attempts to add to private lands are constantly made; but the tendency received a salutary check from the demarcation, mapping, and registering of *bhuinharī* and private lands under the Chotā Nāgpur Tenures Act of 1869. By the original custom of the country, now gradually passing away, rent was as a rule assessed only on the low lands or *dons*. On an average of ten villages in the Government estates in 1897, the rates per acre for low lands were found to range between Rs. 1-2-3 and Rs. 2-1-6, and for high lands between 1½ and 4 annas. These rates are very much lower than those prevalent

in *zamīndāri* villages, where Rs. 8 to Rs. 10 is often charged for an acre of first-class low land. The uplands, when not paying cash rent, are usually liable to the payment of produce rent known as *rukumāt*, which varies a good deal in different parts, and the cultivators are liable to give a certain amount of free labour (*beth begār*) to the landlord.

The following table shows the collections of land revenue and total revenue (principal heads only), in thousands of rupees:—

	1880-1.	1890-1.	1900-1.*	1903-4.
Land revenue . . .	95	1,06	48	52
Total revenue . . .	4,91	7,14	5,93	6,61

* The diminution in the receipts is due to the fact that Palāmau was formed into a separate District in 1892.

Outside the municipalities of RĀNCHĪ and LOHĀRDAGĀ, local affairs are managed by the District board. In 1903-4 its income was Rs. 1,04,000, including Rs. 39,000 derived from rates; and the expenditure was Rs. 1,09,000, the chief items being Rs. 50,000 spent on public works and Rs. 39,000 on education.

The District contains 16 police stations or *thānas* and 16 outposts. In 1903 the force subordinate to the District Superintendent consisted of 3 inspectors, 33 sub-inspectors, 42 head constables, and 352 constables; there was, in addition, a rural police force of 24 *daffadārs* and 2,442 *chaukīdārs*. The District jail at Rānchī has accommodation for 217 prisoners, and a subsidiary jail at Gumla for 21.

Education is backward, only 2·7 per cent. of the population (5·1 males and 0·5 females) being able to read and write in 1901. Great progress is now being made, and the number of pupils under instruction rose from 12,569 in 1892-3 to 19,132 in 1900-1. In 1903-4, 19,074 boys and 2,514 girls were at school, being respectively 22·0 and 2·7 per cent. of the children of school-going age. There were in that year 857 schools, including 15 secondary, 825 primary, and 17 special schools. The most important of these are the District schools, the German Evangelistic Lutheran Mission high school, the first-grade training school, the Government industrial school, and the blind school, all in Rānchī town. The expenditure in 1903-4 was Rs. 1,55,000, of which Rs. 19,000 was derived from Provincial revenues, Rs. 38,000 from District funds, Rs. 700 from municipal funds, Rs. 22,000 from fees, and Rs. 75,000 from other sources.

The District contains 6 dispensaries, of which 3 possess accommodation for 49 in-patients. The cases of 18,348 out-patients and 369 in-patients were treated in 1903, and 768 operations were performed. The expenditure was Rs. 18,000, of which Rs. 1,100 was contributed by Government, Rs. 1,000 by District funds, Rs. 5,000 by Local funds, Rs. 3,000 by municipal funds, and Rs. 9,000 by subscriptions. The

principal institution is the Rānchī dispensary. A small leper asylum at Lohārdagā is conducted by the German mission.

Vaccination is compulsory only in municipal areas, but good progress is being made throughout the District, and in 1903–4 the number of persons successfully vaccinated was 43,000, or 37·3 per 1,000 of the population.

[Sir W. W. Hunter, *Statistical Account of Bengal*, vol. xvi (1877); F. A. Slacke, *Report on the Settlement of the Estate of the Mahārājā of Chotā Nāgpur* (Calcutta, 1886); B. C. Basu, *Report on the Agriculture of the District of Lohārdagā* (Calcutta, 1890); *Papers relating to the Chotā Nāgpur Agrarian Disputes* (Calcutta, 1890); E. H. Whitley, *Notes on the Dialect of Lohārdagā* (Calcutta, 1896); F. B. Bradley-Birt, *Chotā Nāgpur* (1903).]

Rānchī Subdivision.—Head-quarters subdivision of the Bengal District of the same name, lying between 22° 21′ and 23° 43′ N. and 84° 0′ and 85° 54′ E., with an area of 2,366 square miles. The subdivision consists of an elevated undulating table-land, where permanent cultivation is almost confined to the terraces cut in the slopes of the depressions which lie between the ridges. The population in 1901 was 753,236, compared with 730,642 in 1891, the density being 215 persons per square mile. In 1901 it comprised 3,506 square miles; but owing to the formation of the Khunti subdivision in 1905, the area was reduced to 2,366 square miles with a population of 527,829 and a density of 223 persons per square mile. The subdivision contains two towns, RĀNCHĪ (population, 25,970), the head-quarters, and LOHĀRDAGĀ (6,123); and 1,417 villages.

Rānchī Town.—Head-quarters of the District of the same name and also of the Chotā Nāgpur Division, Bengal, situated in 23° 23′ N. and 85° 20′ E., on the Chotā Nāgpur plateau, about 2,100 feet above sea-level. Population (1901), 25,970 (including 2,844 within cantonment boundaries), of whom 12,968 were Hindus, 7,547 Musalmāns, 3,640 Christians, and 1,807 Animists. Rānchī is a station of the Lucknow division of the Eastern Command, and the wing of a native infantry regiment is stationed in the cantonments (formerly known as Dorunda cantonments), which lie 2 miles to the south of the town. It is also the head-quarters of the Chotā Nāgpur Volunteer Mounted Rifles, of the Superintending Engineer of the Western Circle, and of the Executive Engineer of the Chotā Nāgpur Division. It is connected by good metalled roads with Purūlia, Hazāribāgh, and Chaibāsa, and is a large trade centre. It is the chief seat of Christian missionary enterprise in Bengal, and is the head-quarters of three important missions (*see* RĀNCHĪ DISTRICT). Rānchī was constituted a municipality in 1869. The income during the decade ending 1901–2 averaged Rs. 23,000, and the expenditure Rs. 22,000. In

1903–4 the income was Rs. 35,000, mainly derived from a tax on houses and lands and a conservancy rate; and the expenditure was Rs. 32,000. The natural drainage of the town is excellent, and plenty of good water can be obtained from wells. The town contains the usual public buildings; the District jail has accommodation for 217 prisoners, who are employed on the manufacture of oil and of rope from aloe fibre. The most important schools are the District school, with 338 pupils on its rolls in 1902; the German Evangelistic Lutheran Mission high school, intended chiefly for the education of Christian converts, with 230 pupils; the first-grade school for vernacular teachers, with 22 pupils; the Government industrial school, and the blind school. In the industrial school the pupils, who in 1902 numbered 50, receive stipends varying from R. 1 to Rs. 3 per month, and are taught carpentering and blacksmiths' work, &c., together with a certain amount of reading, writing, free-hand drawing, elementary arithmetic, and practical geometry. The course of instruction at the blind school, which had 20 pupils, includes reading by means of raised type representing letters, cane-work, *newār* weaving, and mat-making. It is proposed to build a large asylum for European and Eurasian lunatics from Northern India at Rānchī.

Rānder.—Town in the Chorāsi *tāluka* of Surat District, Bombay, situated in 21° 13′ N. and 72° 48′ E., on the right bank of the Tāpti, 2 miles above Surat city. Population (1901), 10,478, including suburb. Rānder is supposed to be one of the oldest places in Southern Gujarāt. It is said to have been a place of importance about the beginning of the Christian era, when Broach was the chief seat of commerce in Western India. Albirūnī (1031) gives Rānder (Rāhanjhour) and Broach as dual capitals of South Gujarāt. In the early part of the thirteenth century a colony of Arab merchants and sailors is stated to have attacked and expelled the Jains, at that time ruling at Rānder, and to have converted their temples into mosques. Under the name of Nāyatās, the Rānder Arabs traded to distant countries. In 1514 the traveller Barbosa described Rānder as a rich and agreeable place of the Moors (Nāyatās), possessing very large and fine ships, and trading with Malacca, Bengal, Tawasery (Tennasserim), Pegu, Martaban, and Sumatra, in all sorts of spices, drugs, silk, musk, benzoin, and porcelain. In 1530 the Portuguese, after sacking Surat, took Rānder. With the growing importance of Surat, Rānder declined in prosperity, and, by the close of the sixteenth century, became a port dependent on Surat. At present, Bohrās of the Sunni sect carry on trade westwards with Mauritius, and eastwards with Rangoon, Moulmein, Siam, and Singapore. By the opening of the Tāpti bridge in 1877 Rānder was closely connected with Surat city. The municipality, established in 1868, had an average income of about Rs. 20,000 during

the decade ending 1901; in 1903-4 the income was Rs. 23,000. The town contains a dispensary, an English school with 47 pupils, and 6 vernacular schools, 5 for boys with 517 pupils and one for girls with 95.

Rāndhia.—Petty State in KĀTHIĀWĀR, Bombay.

Rāngāmāti Town.—Ancient town in the Berhampore subdivision of Murshidābād District, Bengal, situated in 24° 1′ N. and 88° 11′ E., on the right bank of the Bhāgīrathi, 6 miles south of Berhampore. Population (1901), 400. The clay here rises into bluffs 40 feet high, which form the only elevated ground in the neighbourhood, and are very conspicuous from the river. Few remains have been found except pottery and the traces of buildings, tanks, and wells; but Rāngāmāti is rich in traditional history. The legend respecting the origin of the name, which means 'red earth,' is that Bibhīshana, brother of Rāvana, being invited to a feast by a poor Brāhman at Rāngāmāti, rained gold on the ground as a token of gratitude. By others the miracle is referred to Bhu Deb, who through the power of his austerities rained gold. Rāngāmāti has been identified by Mr. Beveridge with the city of Karna Suvarna, the capital of the old kingdom of the same name visited by the Chinese pilgrim Hiuen Tsiang about A.D. 639. It may also have been the site of the chief of the monasteries mentioned by Hiuen Tsiang as Lo-to-wei-chi-seng-kia-lan, a phonetic rendering of the Sanskrit *Ractaviti sanghārāma*.

After the Muhammadan conquest in 1203, Rāngāmāti (according to Mr. Long) formed one of the ten *faujdāris* into which Bengal was then divided. Its Hindu *zamīndār* was a considerable person, and on the occasion of the great *punyā* at Motijhīl in 1767 he received a *khilat* worth Rs. 7,278, or as much as the *zamīndār* of Nadiā. The site of Rāngāmāti was at one time selected in preference to Berhampore as a healthy spot for the erection of barracks. The East India Company formerly had a silk factory here. All that is now left of this ancient town is a bungalow and a silk filature belonging to the Bengal Silk Company.

[H. Beveridge, 'The Site of Karna Suvarna,' *Journal of the Asiatic Society, Bengal*, vol. lxii, pt. i, No. 4; Capt. Wilford, *Asiatic Researches*, vol. ix, p. 39; and Capt. Layard, *Journal of the Asiatic Society, Bengal*, vol. xxii.]

Rāngāmāti Village.—Head-quarters of the Chittagong Hill Tracts, Eastern Bengal and Assam, situated in 22° 39′ N. and 92° 12′ E., on the banks of the Karnaphuli river. Population (1901), 1,627. Rāngāmāti contains a high school and hospital. It is the residence of the Chakmā chief. The London Baptist Mission has a branch here.

Rangāmātia Village.—Small village in the east of Goālpāra District, Eastern Bengal and Assam, situated in 26° 19′ N. and 90° 36′ E. It was for many years the frontier outpost of the Muhammadans, the country farther east being occupied by the Ahoms.

Rangiā.—Village in the Gauhāti subdivision of Kāmrūp District, Eastern Bengal and Assam, situated in 26° 27′ N. and 91° 37′ E., on the bank of the Baraliā river, 23 miles north of Gauhāti town. The public buildings include a dispensary. Most of the trade is in the hands of Mārwāri merchants known as Kayahs. The principal imports are cotton piece-goods, grain and pulse, kerosene and other oils, and salt; the chief exports are rice and silk cloth. All sorts of country produce are procurable in the village market.

Rangna Fort (or Prasidhagarh).—A favourite fort of Sivajī, situated on a flat-topped hill in the Kolhāpur State, Bombay, about 55 miles south-west of Kolhāpur city. The hill is steep on three sides, with an easy ascent on the north. The top is girt by a wall of rough blocks, leaving three pathways down the hill. The fort is 4,750 feet from east to west, by 2,240 feet from north to south. It was taken in 1659 by Sivajī and repaired, and has since remained in Marāthā hands, but was dismantled in 1844 by order of the British.

Rangoon City.—Capital of Burma and head-quarters of the Local Government, situated in 16° 46′ N. and 96° 11′ E., on both sides of the Hlaing or Rangoon river at its point of junction with the Pegu and Pazundaung streams, 21 miles from the sea. The greater part of the city—the town proper, with its main suburbs of Kemmendine and Pazundaung—lies along the left or northern bank of the river, which at this point, after a southerly course through level paddy-fields and along the city's western side, turns towards the east for a mile or so before bending southwards to the Gulf of Martaban. Behind the array of wharves and warehouses that line the northern bank rise the buildings of the mercantile and business quarter, and thence the ground slopes upwards through a wooded cantonment to the foot of the slight eminence from which the great golden Shwedagon pagoda looks down upon the town and harbour. On the south bank of the Rangoon river are the suburbs of Dala, Kamākasit, Kanaungto, and Seikgyi, a narrow strip of dockyard premises and native huts on the fringe of a vast expanse of typical delta paddy-fields. These mark the southern limit of the city. To the west the boundary is the western bank of the Hlaing; to the east the Pazundaung and Pegu streams hem the city in; to the north the municipal boundary runs through the slightly undulating wooded country into which the European quarter is gradually spreading.

Description.

The population of the city at each of the last four enumerations was as follows: (1872) 98,745, (1881) 134,176, (1891) 180,324, and (1901) 234,881. After the three Presidency towns and the cities of Hyderābād and Lucknow, Rangoon is the most populous city in the Indian Empire. Its rate of growth is, as the census figures show, considerable. The actual increase between 1891

Population.

and 1901 (54,557) was little less than that of Madras, a city of more than double its population, while the growth between 1872 and 1901 (136,136) is exceeded only by that of Calcutta among all Indian cities. A large portion of the increase is due to immigration from India. The number of persons born in India resident in the city was 65,910 in 1891 and 117,713 in 1901 (of whom only 16 per cent. were women). Nearly two-thirds of these foreigners came from Madras, and about one-fifth from Bengal. The Chinese colony has increased from 8,029 in 1891 to 11,018 in 1901. Of the population in 1901, 83,631, or more than one-third, were Buddhists, but the Hindu aggregate (82,994) was almost as large. Musalmāns numbered 43,012, and Christians 16,930, of whom about one-half were Europeans and Eurasians, the number of native Christians being 8,179. The Society for the Propagation of the Gospel and the American Baptist Mission labour in the city. The Wesleyans, Presbyterians, and other Protestant denominations are also represented, and there is a large Roman Catholic mission.

Rangoon has been the administrative head-quarters of the Province ever since the second Burmese War added Pegu to the Indian Empire.

History.

It was never, however, a royal capital, and its importance as a mercantile centre is of comparatively recent development.

According to Talaing tradition, the first village on the site of modern Rangoon was founded about 585 B.C. by two brothers, Pu and Ta Paw, who had received some of Gautama's hairs from the Buddha himself, and, acting on his instructions, enshrined them in the famous Shwedagon pagoda. Punnarika, who reigned in Pegu from A.D. 746 to 761, is said to have refounded the town, and called it Aramana, and it was not till later that it regained its original name of Dagon. The Talaing records relate how it was occupied by the Burmans in 1413; how Byanyakin, the son of Razadirit, was appointed governor; and how Shinsawbu, his sister, in whose memory a national festival is celebrated each year, built herself a palace here in 1460. After this, however, the town gradually sank into a collection of huts. Dala, now a suburb on the right bank of the Hlaing, and Syriam on the opposite side of the Pegu river, are repeatedly noticed; but of Dagon little or nothing is said.

In the wars between the sovereigns of Burma and Pegu, Dagon frequently changed hands; and when in 1753 Alaungpayā (Alompra) drove out the Talaing garrison of Ava (then the Burmese capital), and eventually conquered the Talaing dominions, he came down to Dagon and repaired the great pagoda. Alaungpayā for the most part rebuilt the town, gave it the name of Yan Kon ('the end of the war') or Rangoon, which it has ever since borne, and made it the seat of a viceroy. Until 1790 it was the scene of incessant struggles between

the Burmans and Peguans. In that year the place was captured by the latter, but the rising was speedily quelled by Bodawpayā.

About this period the East India Company obtained leave to establish a factory in Rangoon, and the British colours were hoisted over it. In 1794 differences arose in Arakan and Chittagong between the East India Company and the Burmese government, and in the following year Captain Symes was sent on an embassy to Ava, one of the results of his mission being the appointment of a British Resident at Rangoon in 1798. Symes thus describes Rangoon as he saw it:—

'It stretches along the bank of the river about a mile, and is not more than a third of a mile in breadth. The city or *myo* is a square surrounded by a high stockade, and on the north side it is further strengthened by an indifferent fosse, across which a wooden bridge is thrown. In this face there are two gates, in each of the others only one. On the south side, towards the north, there are a number of huts and three wharves with cranes for landing goods. A battery of 12 cannon (six- and nine-pounders) raised on the bank commands the river, but the guns and carriages are in such a wretched condition that they could do but little execution. The streets of the town are narrow and much inferior to those of Pegu, but clean and well paved. The houses are raised on posts from the ground. All the officers of the government, the most opulent merchants, and persons of consideration live within the fort; shipwrights and persons of inferior rank inhabit the suburbs.'

In the first Burmese War (1824) Rangoon was taken by the British. During the early part of the campaign strenuous efforts were made by the Burmans to recapture it; but it was occupied, though not without heavy losses from sickness, as well as from casualties in action, till 1827, when it was evacuated in accordance with the terms of the Treaty of Yandabo. In 1840 the appearance of Rangoon was described as suggestive of meanness and poverty. In 1841 king Konbaung Min, better known as prince Tharrawaddy, ordered the town and stockade to be removed about a mile and a quarter inland to the site of Okkalaba, and to be called by that name. The royal order was to a certain extent obeyed, the principal buildings and government offices were placed in the new town, and were there when the British force landed and captured Rangoon in April, 1852, on the outbreak of the second Burmese War. From this time onwards the place has remained in possession of the British, its history being one of marvellous development, but, with one or two exceptions (such, for instance, as a riot that occurred in June, 1893), devoid of striking incidents. The city was separated from Hanthawaddy District, of which it formed part, in 1879.

The principal pagodas are the Shwedagon to the north-east of the cantonment, said to contain the relics of no less than four Buddhas,

namely, the water-strainer of Krakuchanda, the staff of Kāsyapa, the bathing robe of Konāgāmana, and eight hairs of Gautama; the Sule pagoda, a more ancient but less pretentious shrine in the centre of the business quarter; and the Botataung pagoda on the river face in the south-east of the town.

Industries.

Rangoon is famous for its carvers in wood and ivory, and for the beauty of its silver-work, which mostly takes the shape of embossed bowls. An art exhibition is held annually, and is no doubt helping to stimulate an interest in art among native workers. Many beautiful specimens of wood-carving are to be found in the shrine of the Shwedagon pagoda.

The factories are for the most part concerned with the preparation of the three principal exports: rice, timber, and oil. Of rice-mills, where the paddy brought from the surrounding rural areas is husked and otherwise prepared for the market, there are about fifty, and of saw-mills about twenty. The petroleum refinery deals with the produce of the earth-oil wells of the dry zone of Upper Burma. The total number of factories in 1904 was 99.

[Commerce.

About five-sixths of the maritime trade of Burma passes through Rangoon, and a history of the commerce of the Province is very little more than a history of the progress of this single port. Since Rangoon became an integral part of the British dominions, its trade has increased by leaps and bounds. In 1856–7 the value aggregated only a crore. By 1881–2 this figure had risen to 11 crores, and by 1891–2 to 19 crores. In 1901–2, in spite of a more stringent tariff than in the past, it had mounted up to close on 26 crores, while 1903–4 showed a further advance of nearly 6 crores on the figures for the previous year. Under practically all the main heads of import and export the growth has been steady. Imports of cotton piece-goods, which in 1881–2 were valued at $6\frac{3}{4}$ lakhs, were valued at nearly 15 lakhs in 1901–2. Provisions have risen in value from 3 to 11 lakhs within the same period, coal from 1 to $3\frac{1}{2}$ lakhs, tobacco from 2 to 4 lakhs, spices from $2\frac{1}{3}$ to $4\frac{1}{2}$ lakhs. Among exports the development has been even more marked. The staple produce of the country is rice. The value of exports in this single commodity amounted in 1901–2 to $9\frac{3}{4}$ crores, compared with 6 crores in 1891–2 and $3\frac{1}{4}$ crores in 1881–2. Next in importance comes teak timber, with a growth in value from 22 lakhs in 1881–2 to 91 lakhs in 1901–2, followed by oil, which has risen from 2 lakhs in the former year to 81 in the latter. Cutch is the only important export that has shown a falling off in recent years.

The following table shows, in thousands of rupees, the actual figures of imports and exports (excluding Government stores and treasure) for the three years selected, and for 1903–4:—

	1881-2.	1891-2.	1901-2.	1903-4.
Imports . .	5,66,96	10,13,58	11,16,69	14,24,68
Exports . .	5,65,83	9,04,20	14,66,17	17,54,56
Total	11,32,79	19,17,78	25,82,86	31,79,24

During the same period the customs revenue rose from 44 lakhs in 1881-2 to 60 lakhs in 1891-2, to 91 lakhs in 1901-2, and finally to over a crore in 1903-4. Owing to the increasing employment of vessels of large burden, the number of ocean-going steamers entering Rangoon has not risen to an extent proportionate to the growth in trade and tonnage, the figures for 1881-2 being 931 vessels with an aggregate capacity of 655,000 tons, while those for 1903-4 were 1,190 vessels with a capacity of 2,005,000.

Rangoon has entered upon an era of prosperity which shows no immediate prospect of waning. The port is administered by a Port Trust constituted under the Rangoon Port Act, 1905, which supervises the buoying and lighting of the river, and provides and maintains wharf and warehouse accommodation. The receipts of the Trust in 1903-4 aggregated nearly 18 lakhs. Rangoon is the terminus of all the lines of railway in the Province. Starting from Phayre Street station, the lines to Prome and Bassein pass westwards between the municipality and the cantonment, and thence northwards through the suburb of Kemmendine. There are frequent local trains along this section of the railway, and several stations within the limits of the city. The main line to Mandalay and Upper Burma runs generally eastwards from the terminus through the suburb of Pazundaung, and, skirting the mills that line the Pazundaung creek, passes north-eastwards into Hanthawaddy District. There are 80 miles of roads within city limits, of which about 60 are metalled. A steam tramway runs east and west through the heart of the business quarter, as well as northwards as far as the Shwedagon pagoda. It is now being electrified. A railway on the eastern side of the city is used for bringing the earth required for the reclamation of the low-lying swampy area near the banks of the river.

Administration.

Rangoon city consists of the municipality, the cantonment, and the port. For the purposes of judicial and general administration it is a District of Lower Burma, in charge of a Deputy-Commissioner who is District Magistrate, and who is assisted by a Cantonment Magistrate, two subdivisional magistrates, and other officials. The Chief Court sits in Rangoon. It is a Court of Session for the trial of sessions cases in the city, and hears appeals from the District Magistrate. There is a bench of honorary magistrates consisting of twenty-three members. On the civil side, the Chief Court

disposes of original civil cases and of civil appeals. Petty civil cases are disposed of in the Small Cause Court, in which two judges sit. There is a good deal of crime in the city. The Indo-Burman community is addicted to theft, and acts of violence are not uncommon, while the proximity of the port appears to make the temptation to smuggle irresistible to certain classes.

The administration of the Rangoon Town Lands is at present conducted under the provisions of the Lower Burma Town and Village Lands Act of 1898. Since 1890 the Town Lands have been managed by a special Deputy-Commissioner, under the control of the Commissioner of Pegu and the Financial Commissioner. For revenue purposes the whole area comprising the Town Lands is divided into eight circles. The revenue collections in the District approximately average Rs. 31,900, the whole of which is credited to Imperial funds. The ground rents, together with premiums and the sale proceeds from lands and building sites, averaging in the past rather more than 3 lakhs, are credited to a special revenue head, from which a contribution of Rs. 1,85,000, diminishing each year by Rs. 25,000 till extinguished in 1908–9, is paid to the Rangoon municipality to be expended on works of utility. The balance is used to finance a scheme for reclaiming and laying out on sanitary lines the low-lying areas of the city. A few acres of rice land are assessed at Rs. 2 an acre, but other lands ordinarily pay a land revenue rate of Rs. 3 an acre. The revision of the rate is under consideration. Other sources of non-municipal revenue within city limits, besides customs and land rate, are excise and income tax. The former brought in about 14 lakhs, and the latter (which has been in force in Rangoon since 1888) more than 6½ lakhs in 1903–4.

The Rangoon municipality covers an area of about 31 square miles, with a population in 1901 (inclusive of the residents of the port) of 221,160. It was constituted on July 31, 1874. The committee consists of 25 members, of whom 19 are elected by the ratepayers and 6 are nominated by Government. Various taxes are levied at a percentage on the annual value of lands and buildings within municipal limits: namely, the 8 per cent. tax for general purposes, the 7 per cent. scavenging tax, the 4 per cent. water tax, and the 1 per cent. lighting tax. The scavenging tax is charged at the rate of 4 per cent. in areas not served by the municipal drainage system. As elsewhere, market tolls are a fruitful source of municipal income in Rangoon.

During the ten years ending 1900 the ordinary income of the municipality (excluding special loans) averaged 17 lakhs, and the ordinary expenditure 15 lakhs. In 1903–4 the ordinary income was 24 lakhs, the principal sources being 14 lakhs from rates, and 3 lakhs from markets and slaughter-houses. The gross income in 1903–4 was 46¾ lakhs, including a loan of 15 lakhs. The ordinary expenditure during that

year was 21 lakhs, and the gross expenditure 55 lakhs. Of this total public works and conservancy absorbed $3\frac{1}{2}$ lakhs each, water-supply 23 lakhs, and hospitals and education about a lakh each.

The cantonment lies to the north of the city. It formerly comprised most of the European residential quarter; but building operations have now been extended outside its limits, mainly in the direction of what is known as the Royal Lake, an artificial stretch of water lying to the north-east of the city, and the cantonment boundary itself is now being curtailed. The population in 1901 was 13,721. There is a cantonment fund administered by the cantonment committee. Its income in 1903-4 was Rs. 84,000, derived largely from house and conservancy rates. The expenditure amounted to Rs. 82,000, devoted in the main to conservancy and police.

The city is at present lit with oil lamps, but electric lighting will probably be introduced at an early date.

The drainage system consists of gravitating sewers which receive the sewage from house connexions and carry it to ejectors. These discharge their contents automatically into a main sewer, through which all the night-soil and sullage water are forced into an outfall near the mouth of the river, immediately to the south-west of Monkey Point Battery to the east of the city. This system has been working since 1889 with most satisfactory results. The water-supply for Rangoon has till recently been drawn from an artificial reservoir about 5 miles from the city, called the Victoria Lake, from which water is carried by a main pipe to the city and supplied at low pressure. Water is also pumped up to a high-level reservoir on the Shwedagon pagoda platform about 100 feet above Rangoon, whence it is supplied to the city by gravitation. This arrangement has provided drinking-water to the city for the past twenty years; but the supply having been found insufficient, a large reservoir lake has been constructed at Hlawga, about 10 miles beyond the Victoria Lake, which is calculated to supply all requirements for an indefinite period.

The city contains several handsome buildings. Among the most conspicuous are the new Government House to the north-west of the cantonment area, the Secretariat buildings to the east of the business quarter, and the District court buildings facing the river in the centre of the city. The new Roman Catholic cathedral, which is approaching completion, promises to be a very handsome structure. The Jubilee Hall, at a corner of the brigade parade ground in the neighbourhood of the cantonment, is one of the more recent additions to the architecture of the city. It is used for public meetings and for recreation purposes. The town hall, in which the municipal offices are located, adjoins the Sule pagoda in the business quarter. The Rangoon College, the General Hospital, and the Anglican cathedral are grouped

together and merit notice. A new hospital, a Provincial Museum, new currency buildings, and a Chief Court are being constructed. There are several public squares and gardens, and a picturesque park (Dalhousie Park) surrounds the Royal Lake referred to above.

Rangoon is garrisoned by British and Native infantry and by two companies of artillery. There are three volunteer corps.

Before June, 1899, the Rangoon police were under the orders of the Inspector-General of Police, but a Commissioner has now been appointed for Rangoon and the police placed directly under his charge. For police purposes the city is divided into three subdivisions, each in charge of a Superintendent. There are 10 police stations and 10 outposts. The total strength of the force under the orders of the Commissioner of Police and the Superintendents is 14 inspectors, 9 head constables, 57 sergeants, and 727 native constables, besides 17 European constables and one European sergeant.

Rangoon has a large Central jail with accommodation for 2,518 native and 80 European prisoners, in charge of a whole-time Superintendent, who is an officer of the Indian Medical Service. The principal industries carried on in it are carpentry, wood-carving, coach-building, weaving, wheat-grinding, and printing. A considerable portion of the printing work for Government is carried out by the jail branch of the Government Press.

Education.

The following are the chief educational institutions in Rangoon: the Rangoon College and Collegiate School, established in 1874, administered by the Educational Syndicate from 1886, and placed in 1904 and 1902 respectively under the direct control of Government; the Diocesan Boys' School, founded in 1864, for the education of Europeans; the Baptist College, opened in 1872 as a secondary school, and in 1894 affiliated to the Calcutta University; St. John's College (S.P.G.), founded in 1864, and affiliated as a high school to the Calcutta University; St. John's Convent School for girls, started in 1861; the Lutheran Mission School for Tamil children, opened in 1878; and St. Paul's (Roman Catholic boys') school, opened in 1861.

In 1903–4 there were 27 secondary schools, 110 primary schools, 206 elementary (private) schools, and 19 training and special schools. The number of pupils in registered schools and in the two collegiate establishments was 8,031 in 1891, 13,514 in 1901, and 17,166 in 1903–4 (including 4,123 females). The expenditure on education in 1903–4 was borne as follows: Provincial funds, Rs. 90,700; municipal funds, Rs. 71,500; fees, Rs. 2,04,300; and subscriptions, Rs. 11,500.

The chief epidemic and contagious diseases prevalent in the city are small-pox, cholera, and enteric fever. Small-pox appears to be introduced annually from the neighbouring Districts, where it is always rife.

Cholera is endemic along the banks of the river and creeks, and is, no doubt, closely related to an impure drinking-water supply. Enteric fever occurs sporadically throughout the city and suburbs. It is probably due to defective drainage and defective water-connexions. Since 1905 plague has been epidemic.

Medical.

The most important medical institutions are the Rangoon General Hospital and the Dufferin Hospital, a new and handsome building recently erected in the north-west corner of the city. In connexion with the General Hospital, there are a contagious diseases hospital and an out-door dispensary at Pazundaung. A lunatic asylum is situated close to the Central jail, in charge of a commissioned Medical officer, and a leper asylum is maintained outside the city.

[Capt. M. Lloyd, *District Gazetteer* (1868).]

Rangoon River.—River of Burma on the left bank of which stands Rangoon city. It rises about 150 miles to the north-west of the city in Prome District, not far from a piece of water known as the Inma Lake, through which it flows, and pursues a south-easterly course down the centre of the narrow strip of lowland in Prome, Tharrawaddy, and Hanthawaddy Districts, which separates the Rangoon-Prome Railway from the channel of the Irrawaddy. In the north it is known as the Myitmakā, and is divided from the Irrawaddy by a low but fairly well-defined watershed. The Myitmakā is an important waterway in Tharrawaddy District. Fed by the streams from the Pegu Yoma in the east, it is the main outlet for the timber which is extracted from the forests of this range. The most important village on its banks in this area is Sanywe, where there is a forest revenue station. Farther south the river is known as the Hlaing, and on this portion steam traffic of light draught is practicable. The Hlaing is connected by various side creeks with the Irrawaddy, the last of which above Rangoon city is the Panhlaing, which joins it almost opposite the western suburb of Kemmendine. From thence onwards the waterway is known as the Rangoon river. The stream, on which ocean steamers can ride at their moorings, separates the city proper and the cantonment of Rangoon from the dockyard suburb of Dala, which lies on the right bank, close to the mouth of the TWANTE CANAL. After skirting the western edge of Rangoon city, the river bends to the east and meets the waters of the Pazundaung creek and the PEGU RIVER to the east of the city, immediately above a shoal known as the Hastings. Thence its course is south-easterly, and it flows eventually into the Gulf of Martaban between Elephant Point and the Eastern Grove lighthouse. Ocean steamers can go up the river as far as Rangoon, but no higher. Skilled pilotage is required for the navigation of the 21 miles that lie between Rangoon and the sea, but the difficulties of the river are not to be compared with those of the Hooghly.

Rangpur District.—District in the Rājshāhi Division of Eastern Bengal and Assam, lying between 25° 3′ and 26° 19′ N. and 88° 44′ and 89° 53′ E., with an area of 3,493 square miles. It is bounded on the north by Jalpaigurī District and the State of Cooch Behār; on the east by the Brahmaputra river, which separates it from Goālpāra, the Gāro Hills, and Mymensingh; on the south by Bogra; and on the west by Dinājpur and Jalpaigurī.

Physical aspects.

Rangpur is one vast alluvial plain, without natural elevations of any kind. Towards the east, the wide valley of the Brahmaputra is annually laid under water during the rainy season; and the remainder of the District is traversed by a network of streams, which frequently break through their sandy banks and plough for themselves new channels over the fields. These river changes have left their traces in the numerous stagnant pools or marshes which dot the whole face of the country, but do not spread into wide expanses as in the lower delta. The general inclination of the surface is from north-west to south-east, as indicated by the flow of the rivers. The BRAHMAPUTRA practically forms the eastern boundary for a distance of 80 miles, but some sand-flats on its farther bank also belong to Rangpur. Though only skirting the eastern frontier, its mighty stream exercises a great influence over the District by the fertilizing effect of its inundations, and also by its diluviating action. The principal tributaries of the Brahmaputra on its western bank, within Rangpur, are the TĪSTA, Dharlā, Sankos, and Dudhkumār. The Tīsta receives numerous small tributary streams from the north-west and throws off many offshoots, the most important of which is the Ghāghāt, which meanders through the centre of the District for 114 miles. The Ghāghāt was formerly an important branch of the Tīsta, and, previous to the change in the course of that river in the eighteenth century, was an important channel of communication, passing by Rangpur town. The residents' bungalows, the Company's factories, and the old capital, Mahīganj, stretched along its banks. The opening from the Tīsta has now, however, nearly silted up, and the Ghāghāt has deserted its old bed.

The KARATOYĀ, the most important river in the west, forms for some distance the boundary with Dinājpur. In its course through Rangpur, it receives two tributaries from the east, both of greater volume than itself, the Sarbamangalā and Jabuneswarī. The Dharlā marks for a few miles the boundary with Cooch Behār, and then turns south and enters the District, which it traverses in a tortuous south-easterly course for 55 miles before it falls into the Brahmaputra. The bed of this river is sandy and the current rapid, and numerous shallow and shifting sands render navigation extremely difficult. The only other rivers deserving mention are the Manās and Gujariā; but the District

is everywhere seamed by small streams and watercourses, many of which are navigable by small craft in the rainy season. There are numerous stagnant marshes, some of them in inconvenient proximity to Rangpur town, forming a source of unhealthiness. These marshes are gradually silting up, a process which was accelerated, in some instances, by the upheaval of their beds during the earthquake of 1897.

The surface is covered with alluvium, the soil being a mixture of clay and sand deposited by the great rivers which drain the Himālayan region. For the most part this is of the recent alluvial type known as *pali*, but a strip of hard red clay in the south-west forms a continuation of the BĀRIND and contains nodules of *kankar*. This old alluvium is known as *kheyār*.

Where the ground is not occupied by the usual crops of Northern Bengal, it is covered with abundant natural vegetation. Old river-beds, ponds and marshes, and streams with a sluggish current have a copious vegetation of *Vallisneria* and other plants. Land subject to inundation has usually a covering of *Tamarix* and reedy grasses; and in some parts, where the ground is more or less marshy, *Rosa involucrata* is plentiful. Few trees occur on these inundated lands; the most plentiful and largest is *Barringtonia acutangula*. The District contains no forests; and even on the higher ground the tree vegetation is sparse, the individuals rather stunted as a rule, and the greater portion of the surface is covered with grasses, the commonest of these being *Imperata arundinacea* and *Andropogon aciculatus*. Among the trees the most conspicuous are varieties of *Ficus* and the red cotton-tree (*Bombax malabaricum*). The *sissū* (*Dalbergia Sissoo*), the mango, the areca palm (*Areca Catechu*), jack (*Artocarpus integrifolia*), bamboo, plantain, species of *Citrus*, *bakul* (*Mimusops Elengi*), *nāgeswar* (*Mesua ferrea*), and *jām* (*Eugenia Jambolana*) occur as planted or sometimes self-sown species. The villages are generally embedded in thickets or shrubberies of semi-spontaneous and more or less useful trees. The *tejpāt* (*Laurus Cassia*) is grown for its aromatic leaves which are exported as a condiment, and pineapples are common.

Leopards and wild hog are still met with, especially in the alluvial islands of the Brahmaputra; but tigers, which were formerly numerous, have disappeared before the spread of cultivation.

In the cold-season months northerly or north-easterly winds from the Himālayan region prevail, and the temperature is comparatively low, the mean minimum falling to 49° in January. The highest mean maximum temperature is 91° in April. Rainfall commences early, with 4 inches in April and 11 in May, and is heavy, the average fall for the year being 82 inches, of which 19½ inches occur in June, 15 in July, 12 in August, 13 in September, and 5 in October.

The earthquake of 1897 was very severely felt in Rangpur. Not

only did it destroy buildings and cause damage estimated at 30 lakhs, but by upheaving the beds of rivers it effected serious alterations in the drainage of the country. Rangpur town, for instance, was seriously affected by the raising of the beds of its drainage channels, and the public buildings and masonry houses were entirely or partially wrecked. Moreover, the earth opened in fissures, from which torrents of mud and water poured on to the fields, causing widespread destruction of the standing crops and rendering the lands uncultivable. Considerable subsidences also occurred, especially in the neighbourhood of Gaibānda, where marshes were formed.

The District is liable to inundation; but no notable disaster has occurred since the great flood of 1787, which not only caused terrible loss of life and widespread destruction of crops, resulting in famine, but by forcing the Tīsta to change its course, completely altered the hydrography of the District. In the same disastrous year a cyclone swept over the stricken country; hundreds of trees were blown down or torn up by the roots; the houses of the Europeans were almost all unroofed, and there was scarcely a thatched house left standing.

History.

According to the Mahābhārata, Rangpur formed the western outpost of the ancient Hindu kingdom of Kāmarūpa, or Prāgjyotisha, which extended westwards as far as the Karatoyā river. The capital was generally much farther east; but the great Rājā Bhagadatta, whose defeat is recorded in the epic, is said to have built a country residence at Rangpur, which is locally interpreted to mean the 'abode of pleasure.' Local traditions have preserved the names of three dynasties that ruled over this tract of country prior to the fifteenth century. The earliest of these is associated with the name of Prithu Rājā, the extensive ruins of whose capital are still pointed out at BHITARGARH in Jalpaigurī District. Next came a dynasty of four kings, whose family name of Pāl recurs in other parts of Bengal and also in Assam; and lastly a dynasty of three Khen kings—Nīladhwaj, Chakradhwaj, and Nīlāmbar—the first of whom founded KAMĀTĀPUR in Cooch Behār. Rājā Nīlāmbar is said to have been a great monarch; but about 1498 he came into collision with Alā-ud-dīn Husain, the Afghān king of Gaur, who took his capital by stratagem, and carried him away prisoner in an iron cage. The Muhammadans, however, did not retain their hold upon the country. A period of anarchy ensued; among the wild tribes which then overran Rangpur, the Koch came to the front and their chief, Biswa Singh, founded the dynasty which still exists in COOCH BEHĀR, and of which an account is given in the article on that State. As soon as the Mughal emperors had established their supremacy in Bengal, their viceroys began to push their north-eastern frontier across the Brahmaputra. By 1603 the Muhammadans were firmly established

at Rāngāmāti in Goālpāra; but Rangpur proper was not completely subjugated until 1661, though it had been nominally annexed to the Mughal empire in 1584. In the extreme north the Cooch Behār Rājās were able to offer such a resolute resistance that in 1711 they obtained a favourable compromise, in accordance with which they paid tribute as *zamīndārs* for the *parganas* of Bodā, Pātgrām, and Purbabhāg, but retained their independence in Cooch Behār proper.

When the East India Company acquired the financial administration of Bengal in 1765, the province of Rangpur, as it was then called, was a frontier tract bordering on Nepāl, Bhutān, Assam, and Cooch Behār, and included the District of Rāngāmāti, east of the Brahmaputra, as well as a great part of the present District of Jalpaigurī. Its enormous area, and the weakness of the administrative staff, prevented the Collector from preserving order in the remote corners of his District, which thus became the secure refuges of banditti. The early records of Rangpur and the neighbouring parts of Bengal are full of complaints on this head, and of encounters between detachments of sepoys and armed bands of dacoits. In 1772 the banditti, reinforced by disbanded troops from the native armies, and by the peasants ruined in the famine of 1770, were plundering and burning villages in bodies of fifty thousand. A small British force sent against them received a check; and in 1773 Captain Thomas, the leader of another party, was cut off, and four battalions had to be employed. In the year 1789 the Collector conducted a regular campaign against these disturbers of the peace, who had fled to the great forest of Baikuntpur, now in Jalpaigurī. There he blockaded them with a force of 200 *barkandāz* and compelled them to surrender, and no less than 549 robbers were brought to trial. At first the British continued the Muhammadan practice of farming out the land revenue to contractors; but in 1783 the exactions of a notorious farmer, Rājā Devī Singh of Dinājpur, drove the Rangpur cultivators into open rebellion, and the Government was induced to invite the *zamīndārs* to enter into direct engagements for the revenue.

In recent times Rangpur has had no history beyond the recital of administrative changes. The tract east of the Brahmaputra was formed into the District of Goālpāra in 1822, and in 1826 was transferred to the province of Assam. Three northern *parganas* now constitute part of the District of Jalpaigurī, and a considerable area in the south has been transferred to Bogra. One large estate, known as the Patiladaha estate, is situated partly in Rangpur and partly in Mymensingh District; it pays revenue into the Rangpur treasury, but the greater portion is under the criminal supervision of the Magistrate of Mymensingh.

On the east bank of the Karatoyā at KAMĀTĀPUR, about 30 miles south of Rangpur, are the ruins of an old fort, which according to tradition was built by Nīlāmbar, the last and greatest of the Khen

Rājās. It is about three-quarters of a mile in diameter, and is enclosed by a lofty earthen rampart and moat. Close by is a *dargāh* or Muhammadan shrine, which is said to have been erected over the staff of the Muhammadan saint Ismail Ghāzī, governor of Ghorāghāt, who is famed for having forcibly converted the neighbouring *zamīndārs* to Islām. A few miles south of Dimlā are the remains of a fortified city, which retains the name of Dharma Pāl. It is in the form of an irregular parallelogram, rather less than a mile from north to south and three-quarters of a mile from east to west, and is surrounded by raised ramparts of earth and ditches. Tradition connects these ruins with the Pāl Rājās. A brick temple of Sarbamangalā, 250 years old, stands 2½ miles east of the Gobindganj police station; the battles described in the Rāmāyana, Mahābhārata, and other Hindu works are depicted on the walls.

Population.

There has been no real increase in the population since 1872, and no other part of Bengal shows so little progress in this respect. Owing to the prevalence of malarial fever, the inhabitants decreased from 2,153,686 in 1872 to 2,097,964 in 1881, and to 2,065,464 in 1891. Since 1891 the lost ground has been recovered, and though this is mainly due to immigration, there has undoubtedly been a great improvement in public health. The principal diseases are malarial fevers, small-pox, and cholera. Goitre and elephantiasis are also common. Insanity is prevalent, owing to the large proportion of persons of Koch origin who are especially subject to this infirmity.

The chief statistics of the Census of 1901 are shown below:—

Subdivision.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Rangpur . .	1,141	1	1,897	658,291	577	+ 1.8	25,153
Nilphāmāri .	648	3	370	461,314	712	+ 3.0	19,361
Kurigrām . .	942	1	1,518	514,392	546	+ 1.3	15,011
Gaibānda . .	762	1	1,427	520,184	683	+ 12.2	14,299
District total	3,493	6	5,212	2,154,181	617	+ 4.3	73,824

The principal towns are RANGPUR and SAIDPUR. Thanks to its very fertile soil, Rangpur, in spite of its long-continued unhealthiness, has still a far denser population than most of the surrounding Districts. The only parts where there are less than 500 persons per square mile are the two unhealthy and ill-drained *thānas* of Pīrganj and Mitāpukur in the south-central part of the District, and Alīpur on the eastern boundary, which includes in its area the bed and sandy islands of the Brahmaputra. The densest population is found in the north-west, in the Nilphāmāri subdivision, where jute cultivation and trade are carried on very extensively. The immigrants consist of

temporary labourers from Bihār and the United Provinces, and more permanent settlers from Dacca, Pābna, and Nadiā. The result of the large temporary immigration is a remarkable preponderance of the male population, which exceeds the number of females by 8·5 per cent. The language spoken is the dialect of Bengali known as Rangpurī or Rājbansī. Muhammadans number 1,371,430, or nearly 64 per cent. of the total; and Hindus 776,646, or 36 per cent. The former are much the more prolific, and have steadily increased from 61 per cent. in 1881 to their present proportion.

The Aryan castes are very poorly represented. Nearly two-thirds of the Hindu population are Rājbansis, a caste of mixed origin, partly descended from Mongoloid Kochs, and partly of Dravidian stock; many Baishnabs have been recruited from this caste. Members of the great aboriginal castes of Eastern Bengal, Chandāl and Kaibartta, are also numerous. Of the Musalmāns, 92 per cent. call themselves Shaikhs and nearly all the rest Nasyas (converted Rājbansis); all are probably descendants of converts from the aboriginal Hindu castes. Of the total population, 85 per cent. are supported by agriculture, 6 per cent. by industry, and 1 per cent. by one or other of the professions; while earthwork and general labour employ nearly 4 per cent. The proportion of agriculturists far exceeds the general average for Bengal, while the industrial population is only half.

The Christians number 453, of whom 92 are native Christians, and are chiefly railway employés in Saidpur town, most of whom belong to the Anglican communion or the Roman Catholic Church. A Baptist mission at Rangpur has made some 60 converts.

Agriculture.

The soil is remarkably fertile, being generally a sandy loam deposited by the rivers when in flood. In the north there are extensive sandy plains, the remains of old watercourses, especially of the numerous old beds of the Tīsta, admirably suited to the cultivation of tobacco, for which the District is noted. A strip of hard red clay in the west, which is part of the BĀRIND, is favourable for the cultivation of fine qualities of winter rice and sugar-cane.

The chief agricultural statistics for 1903–4 are shown below, areas being in square miles:—

Subdivision.	Total.	Cultivated.	Cultivable waste.
Rangpur	1,141	763	141
Nilphāmāri	648	444	95
Kurigrām	942	404	139
Gaibānda	762	304	94
Total	3,493	1,915	469

No less than 1,222 square miles, or 64 per cent. of the net cultivated

area, are twice cropped. The principal staples are rice, jute, rape and mustard, and tobacco. By far the most extensive crop is rice, which occupies 88 per cent. of the net cropped area. More than three-quarters of the crop is harvested in the winter, and the rest in the autumn. The early rice is grown principally on high lands, but one variety thrives on low marshy soil. The light alluvial soils are admirably suited to jute cultivation, and Rangpur yields an eighth of the whole output of Bengal, being second only to Mymensingh. Tobacco, another speciality of the District, thrives best on the sandy lands along the banks of the Tīsta river. Rape and mustard are also grown largely in Rangpur, and are especially common on the islands in the Brahmaputra. Potatoes are coming into favour.

During the past twenty years there has been a considerable spread of cultivation by the reclamation of waste and silted-up marshy lands, and there is now little room for further extension. The progress of jute cultivation has been extraordinary, and to some extent this has been at the expense of rice. There is little or no irrigation, which is rendered unnecessary by the copious and regular rainfall. Owing to the fertility of the soil and the prosperity of the people, little use has been made of the Land Improvement and Agriculturists' Loans Acts; but in 1897–8, a year of poor crops, Rs. 3,400 was advanced under the latter Act.

The country-bred cattle are poor, and animals from Upper India are purchased in large numbers at the Darwāni fair. Buffaloes, though small, are largely reared and are exported in considerable numbers to Assam. Very little pasturage is left except in the river islands, and it is difficult to feed the cattle, especially during the rains.

Trade and communications.

Indigenous manufactures are insignificant and decaying. Cotton carpets and cloth, gunny cloth, and rough silk (*endi*) are woven on a small scale, and a few brass-ware and bell-metal utensils are manufactured. There are jute presses at DOMĀR and SAIDPUR, and railway workshops at the latter place.

The trade is now almost entirely carried by rail. The chief imports are cotton piece-goods, salt, kerosene oil, coal, and rice; and the chief exports are jute, tobacco, mustard, unrefined sugar, and rice. The centres of the jute export business are Domār, Darwāni, Saidpur, and Rangpur town. Tobacco is bought by the Arakanese and exported to Burma, where it is manufactured into cigars. Rice is imported chiefly from the neighbouring Districts of Dinājpur and Bogra, and exported to Calcutta; coal is imported from Burdwān and Mānbhūm, and some tobacco goes to the neighbouring Districts; but the rest of the trade is with Calcutta. The merchants are for the most part Europeans, Mārwāris, and Sāhās. The brokers are local Muhammadans, with a sprinkling of Rājbansis.

Few Districts are better provided with railway communication, which has been rapidly extended within recent years. The northern branch of the Eastern Bengal State Railway intersects the west of the District from south to north. From the Pārvatīpur station, on this line, the Assam line strikes eastward, passing through Rangpur town and crossing the Tīsta and Dharlā rivers by large bridges. In 1901 this line had its terminus at Gitaldāha in Cooch Behār, but it has since been extended to Dhubri in Assam; a branch line starts from the left bank of the Tīsta and runs to Kurigrām. The Bengal-Duārs Railway starts from the Lālmanir Hāt station on the Assam line, and, after traversing the north of the District, meets the Eastern Bengal State Railway at Jalpaigurī. Finally, a branch line, called the Brahmaputra-Sultānpur Branch Railway, from the Eastern Bengal State Railway at Sāntāhār traverses the Gaibānda subdivision to Phulcharī, on the right bank of the Brahmaputra. A new line from Kauniā to Bonārpāra, on the Brahmaputra-Sultānpur Branch Railway, has been recently sanctioned. In 1903–4 the total length of roads was 2,477 miles, but of these only 14 miles were metalled. They are maintained by the District board, with occasional help from Provincial revenues for the upkeep of feeder roads for the railways. The principal roads are those to Bogra, Dinājpur, Jalpaigurī, Cooch Behār, Dhubri, Chilmāri, and Phulcharī.

The steamers of the India General and the Rivers Steam Navigation Companies, which ply up and down the Brahmaputra, stop at four stations within the District. The Tīsta and Dharlā are navigable throughout the year, and most of the other rivers during the rainy season, by ordinary native trading boats and dug-outs. There are 146 public ferries, yielding an income of Rs. 48,000 per annum to the District board, as well as numerous private ferries.

Famine.

The famine which followed the storm and cyclone of the disastrous year 1787 is said to have carried off one-sixth of the population. Since that date no severe famine has visited the District, though in 1874 some relief was necessary.

Administration.

For administrative purposes the District is divided into four subdivisions, with head-quarters at RANGPUR, NILPHĀMĀRI, KURIGRĀM, and GAIBĀNDA. The staff at head-quarters comprises, in addition to the Magistrate-Collector, four Deputy-Magistrate-Collectors, while each of the other subdivisions is in charge of a Deputy-Magistrate-Collector.

There are in all 14 criminal courts (including those of honorary magistrates) and 9 civil courts: namely, those of the District and Sessions Judge, Subordinate Judge, and two Munsifs at Rangpur town, two at Kurigrām, two at Gaibānda, and two at Nilphāmāri. Offences against marriage and the abduction of girls are very common, and cases of arson and petty burglary are also numerous.

The changes which have taken place in its boundaries render it difficult to trace the early revenue history of the present District. In 1740 the land revenue was 3·4 lakhs; and by 1764, the year preceding the British occupation, it had risen to 5·1 lakhs, the actual collections being 4·9 lakhs. In 1765, the first year of British administration, no less than 9·1 lakhs was realized. The revenues were then farmed, and it was not until 1778 that the *zamīndārs* were admitted to settlement. The District was permanently settled in 1793 for 8·2 lakhs.

The current land revenue demand for 1903–4 was 10·1 lakhs, of which all but Rs. 4,000 was due from permanently settled estates. The increase since 1793 is due to the resumption and assessment of lands held free of revenue under invalid titles. At the time of the Permanent Settlement the District comprised only 75 estates; these have increased to 659 by partitions, resumptions, and transfers from other Districts. The revenue is collected with extreme punctuality. Its incidence is light, as it is only equivalent to R. 0–12–2 per cultivated acre, or to one-fifth of the *zamīndārs'* rent-rolls. The *jot* (holding) is here occasionally a very big tenure, especially in the east of the District, where the biggest *jotdār* has a rent-roll of Rs. 80,000. *Chukāni* is the name of an under-tenure subleased from a *jotdār*, the actual cultivator below the *chaukānidār* being generally an *ādhiār*, who pays half the crop as rent. *Upanchakī* is the name of a tenure granted for charitable or religious purposes at a quit-rent in perpetuity; the *majkuri* is a similar tenure, but liable to enhancement of rent. The average rates of rent paid by actual cultivators to their immediate landlords vary from Rs. 3–6 to Rs. 6 an acre; higher rents are paid for good loam lands and lower for hard clays. The great majority of the ryots possess occupancy rights, and the number who hold either at fixed rents or without a right of occupancy is very small.

The following table shows the collections of land revenue and total revenue (principal heads only), in thousands of rupees:—

	1880–1.	1890–1.	1900–1.	1903–4.
Land revenue . .	10,19	10,15	10,15	9,83
Total revenue . .	17,22	18,16	20,17	20,68

Outside the Rangpur municipality local affairs are managed by the District board, with a local board at each of the subdivisions. In 1903–4 the income of the District board was Rs. 3,41,000, of which Rs. 1,23,000 was derived from rates; and the expenditure was Rs. 2,82,000, including Rs. 1,83,000 spent on public works, and Rs. 60,000 on education.

The District contains 17 *thānas* or police stations and 9 outposts. In 1903 the force under the control of the District Superintendent

numbered 4 inspectors, 44 sub-inspectors, 34 head constables, and 387 constables. In addition, the village police numbered 441 *daffadārs* and 4,655 *chaukīdārs*. The District jail has accommodation for 263 prisoners, and the subsidiary jails at the subdivisional head-quarters for 53.

Education is very backward, and in 1901 only 3·4 per cent. of the population (6 males and 0·2 females) could read and write. A considerable advance has, however, been made in recent years, the total number of pupils under instruction having increased from about 17,000 in 1883 to 22,875 in 1892-3 and to 31,001 in 1900-1, while 37,576 boys and 1,742 girls were at school in 1903-4, being respectively 22·2 and 1·1 per cent. of those of school-going age. The number of educational institutions, public and private, in that year was 1,227, including 64 secondary and 1,131 primary schools. The expenditure on education was 2 lakhs, of which Rs. 22,000 was met from Provincial funds, Rs. 54,000 from District funds, Rs. 1,000 from municipal funds, and Rs. 95,000 from fees. The most important educational institution is the technical school in Rangpur town.

Rangpur is well provided with medical relief, as it contains 25 charitable dispensaries, of which 7 have accommodation for 102 in-patients. The number of cases treated in 1903 comprised 1,257 in-patients and 163,000 out-patients, and 3,411 operations were performed. The expenditure was Rs. 50,000, of which Rs. 8,000 was met from Government contributions, Rs. 6,000 from Local funds, Rs. 3,000 from municipal funds, and Rs. 12,000 from subscriptions.

Vaccination is compulsory only in Rangpur town. In the rest of the District 77,000 successful operations were performed in 1903-4, representing 36 per 1,000 of the population.

[Martin, *Eastern India*, vol. iii (1838); *Further Notes on the Rangpur Records* (Calcutta, 1876); and Sir W. W. Hunter, *Statistical Account of Bengal*, vol. vii (1876).]

Rangpur Subdivision.—Head-quarters subdivision of Rangpur District, Eastern Bengal and Assam, lying between 25° 18′ and 26° 16′ N. and 88° 56′ and 89° 31′ E., with an area of 1,141 square miles. The subdivision is mainly an alluvial tract, drained on the extreme west by the Karatoyā and intersected by the Ghāghāt, a small tortuous river, on either side of which are swamps and many channels clogged with vegetation. The population in 1901 was 658,291, compared with 646,388 in 1891. It contains one town, RANGPUR (population, 15,960), the head-quarters, and 1,897 villages, and has a density of 577 persons per square mile. The subdivision is unhealthy, and two of its *thānas*, Mahīganj and Mitāpukur, have lost population since 1891 and still more since 1872.

Rangpur Town.—Head-quarters of the District of the same name

in Eastern Bengal and Assam, situated in 25° 45′ N. and 89° 15′ E. Population (1901), 15,960. The name of Rangpur (the 'abode of bliss') is said to be derived from the legend that Rājā Bhagadatta, who took part in the war of the Mahābhārata, possessed a country residence here. Rangpur was captured by the Afghān king Alā-ud-dīn Husain, who ruled at Gaur from 1493 to 1519. It is an unhealthy place, and suffered severely in the earthquake of 1897, when nearly all its buildings were wrecked. Rangpur was constituted a municipality in 1869. The municipal income during the decade ending 1901–2 averaged Rs. 31,000, and the expenditure Rs. 26,000. In 1903–4 the income was Rs. 53,000, of which Rs. 9,000 was derived from a tax on persons (or property tax), Rs. 8,000 from a conservancy rate, and Rs. 9,000 from a tax on vehicles; the expenditure in the same year was Rs. 59,000. Two channels have been dug to drain the marshes in the neighbourhood of the town, but one of them was rendered useless by the earthquake of 1897. The town contains the usual public offices. The District jail has accommodation for 263 prisoners. The principal jail industries carried on are oil-pressing, *surki*-pounding, string- and rope-making, bamboo and cane-work, cloth-weaving, carpentry, paddy-husking, and wheat and pulse-grinding. The Rangpur District school was founded in 1832 by the local *zamīndārs*, and was taken over by Government in 1862; there were 385 pupils in 1901. The Tājhāt estate maintains a high school, for which a good building has recently been erected. A technical school, known as the Bayley-Gobind Lāl Technical Institute, was founded in 1889, and is affiliated to the Sibpur Engineering College; it has 101 pupils on its rolls.

Rānībāgh.—Village in the Outer Himālayas, Nainī Tāl District, United Provinces. *See* KĀTHGODĀM.

Rānībennur Tāluka.—South-easternmost *tāluka* of Dhārwār District, Bombay, lying between 14° 24′ and 14° 48′ N. and 75° 27′ and 75° 49′ E., with an area of 405 square miles. The population in 1901 was 104,274, compared with 92,978 in 1891. The density, 257 persons per square mile, slightly exceeds the District average. There are three towns, RĀNĪBENNUR (population, 14,851), the head-quarters, BYĀDGI (6,659), and TUMINKATTI (6,341); and 116 villages. The demand for land revenue in 1903–4 was 1·78 lakhs, and for cesses Rs. 13,000. The country is generally flat, with a low range on the north and a group of hills in the east, and is well supplied with water. The prevailing soil is black in the low-lying parts and red on the hills and uplands. Important protective irrigation works have been constructed at Asundi and Medleri. The capital outlay to the end of 1903–4 on these tanks was 1·6 lakhs, and they supplied 341 acres in that year.

Rānībennur Town.—Head-quarters of the *tāluka* of the same name in Dhārwār District, Bombay, situated in 14° 37′ N. and 75° 38′ E.,

on the Southern Mahratta Railway, and on the road from Poona to Madras. Population (1901), 14,851. A municipality was established in 1858, the average receipts during the decade ending 1901 being Rs. 7,900. In 1903–4 the income was Rs. 9,400. This is a thriving town, noted for the excellence of its silken and cotton fabrics, and having a considerable trade in raw cotton. In 1800, while in pursuit of the Marāthā freebooter Dhundia Wāgh, Colonel Wellesley (afterwards the Duke of Wellington), being fired on by the garrison, attacked and captured the town. In 1818 a party of General Munro's force occupied Rānībennur. In February and August the local shepherds visit Chol Maradi, or 'scorpion hill,' 2 miles south of the town, to worship Bīr Deo, an incarnation of Siva. While the god is present on the hill the scorpions, it is said, do not sting. The town contains a dispensary and 7 schools, including a municipal middle school.

Rānīgām.—Petty State in KĀTHIĀWĀR, Bombay.

Rānīganj.—Town in the Asansol subdivision of Burdwān District, Bengal, situated in 23° 36′ N. and 87° 6′ E., on the north bank of the Dāmodar river. Population (1901), 15,841. The town, which has a station on the East Indian Railway and was the head-quarters of the subdivision until 1906, owes its importance to the development of the coal industry and is one of the busiest places in Bengal. Extensive potteries give employment to 1,500 hands, the value of the out-turn in 1903–4 being estimated at 6·45 lakhs. Paper-mills employ nearly 800 hands, and 2,884 tons of paper valued at 8·65 lakhs were manufactured in 1903–4; 3 oil-mills are also at work. There is a considerable trade in rice and oil. Rānīganj was constituted a municipality in 1876. The income during the decade ending 1901–2 averaged Rs. 19,000, and the expenditure Rs. 16,000. In 1903–4 the income was Rs. 22,000, of which Rs. 12,000 was derived from a tax on houses and lands; and the expenditure was Rs. 20,100. A Wesleyan Methodist mission maintains a leper asylum, an orphanage, and day schools.

Rānījula.—Hill in the Jashpur State, Central Provinces, situated in 23° 0′ N. and 83° 36′ E., rising to a height of 3,527 feet above sea-level.

Rānīkhet.—Military sanitarium in the District and *tahsīl* of Almorā, United Provinces, situated in 29° 38′ N. and 79° 26′ E., at the junction of cart-roads leading to the foot of the hills at Kāthgodām (49 miles) and Rāmnagar (56 miles). Population in summer (1900), 7,705, including 2,236 Europeans, and in winter (1901) 3,153. The cantonment is situated on two ridges, Rānīkhet proper, elevation 5,983 feet; and Chaubattiā, elevation 6,942 feet. It is occupied by British troops throughout the summer, and the accommodation is being enlarged. A dispensary is maintained here. It was at one time proposed to move the head-quarters of the Government of India from Simla to

Rānīkhet. The income and expenditure of the cantonment fund averaged Rs. 21,000 during the ten years ending 1901. In 1903-4 the income was Rs. 29,000 and the expenditure Rs. 33,000. An excellent system of water-works has recently been carried out.

Rānipet Subdivision.—Subdivision of North Arcot District, Madras, consisting of the *tāluks* of WĀLĀJĀPET and CHANDRAGIRI and the *zamīndāri tahsīls* of KĀLAHASTI and KĀRVETNAGAR.

Rānipet Town ('queen's town').—Town in the Wālājāpet *tāluk* of North Arcot District, Madras, situated in 12° 56′ N. and 79° 20′ E., on the north bank of the Pālār river. Population (1901), 7,607. The place comprises the European quarters of Arcot, and is said to have been founded about the year 1713 by Saādat-ullah Khān, in honour of the youthful widow of Desing Rājā of Gingee, who committed *satī* when her husband was slain by Saādat-ullah's forces. The place was of no importance till it became a British cantonment, when it was made a large cavalry station and rapidly extended. It is now the head-quarters of the divisional officer. The Roman Catholics and the American Mission have churches in the town. There is a large dispensary; and every Friday a fair is held on the old parade ground north of the town, where a larger number of cattle are sold than in any other market in the District. The Naulākh Bāgh or 'nine-lakh garden' of mangoes and other trees, planted by one of the early Nawābs of Arcot, is near the town.

Rānipura.—Petty State in MAHĪ KĀNTHA, Bombay.

Rann of Cutch.—Salt waste in Bombay. *See* CUTCH, RANN OF.

Rānpur.—One of the Tributary States of Orissa, Bengal, lying between 19° 54′ and 20° 12′ N. and 85° 8′ and 85° 28′ E., with an area of 203 square miles. It is bounded on the north, east, and south by Purī District, and on the west by the State of Nayāgarh. The south-west is a region of forest-clad and almost entirely uninhabited hills, which wall in its whole western side, except at a single point, where a pass leads into the adjoining State of Nayāgarh. To the north and east there are extensive fertile and populous valleys. The State claims to be the most ancient of all the Orissa Tributary States, and its long list of chiefs covers a period of over 3,600 years. It is the only State whose ruler refrains from pretensions to an Aryan ancestry; and in 1814, in response to an inquiry addressed to all the chiefs, the Rājā was not ashamed to own his Khond origin. The State yields an estimated revenue of Rs. 54,000, and pays a tribute of Rs. 1,401 to the British Government. The population increased from 40,115 in 1891 to 46,075 in 1901. The number of villages is 261, and the density is 227 persons per square mile. Hindus number 45,762, by far the most numerous caste being the Chāsas (14,000). The capital of the State is 14 miles from the Kalupāra Ghāt station of the East Coast

section of the Bengal-Nāgpur Railway, and about 10 miles from the Madras trunk road, with which it is connected by a feeder road partly bridged and metalled. The State maintains a middle English school, 3 upper primary and 38 lower primary schools, and a dispensary.

Rānpur.—Town in the Dhandhuka *tāluka* of Ahmadābād District, Bombay, situated in 22° 21′ N. and 71° 43′ E., on the north bank of the Bhādar river, at its confluence with the Goma. Population (1901), 6,423. On the raised strip of land between the two rivers is an old fort, partly in ruins. Rānpur was founded about the beginning of the fourteenth century by Rānājī Gohil, a Rājput chieftain, the ancestor of the Bhaunagar family. Here his father Sekājī had settled, and named the place Sejākpur; but the son, having strengthened Sejākpur with a fort, called it Rānpur. Some time in the fifteenth century the ruling chief embraced the Muhammadan religion and founded the family of the present Rānpur Molesalāms. About 1640 Azam Khān built the fort of Shāhāpur, whose ruins still ornament the town. In the eighteenth century Rānpur passed to the Gaikwār, and from him to the British in 1802. Rānpur is a station on the Bhavnagar-Gondal Railway. The municipality, established in 1889, had an average income during the decade ending 1901 of about Rs. 6,000. In 1903-4 the income amounted to Rs. 6,800. The town contains a dispensary and three schools, of which one is an English middle school with 33 pupils, and two are vernacular, one for boys and one for girls, attended respectively by 317 and 125 pupils.

Ranthambhor (*Ranastambhapura*, or 'the place of the pillar of war').—Famous fort in the Sawai Mādhopur *nizāmat* in the south-east corner of the State of Jaipur, Rājputāna, situated in 26° 2′ N. and 76° 28′ E., on an isolated rock 1,578 feet above sea-level, and surrounded by a massive wall strengthened by towers and bastions. Within the enclosure are the remains of a palace, a mosque with the tomb of a Muhammadan saint, and barracks for the garrison. The place is said to have been held by a branch of the Jādon Rājputs till they were expelled by the famous Prithwī Rāj in the twelfth century, when the Chauhān Rājputs took possession. Altamsh, the third king of the Slave dynasty, seized the fort in 1226, but held it only for a time. In 1290 or 1291 Jalāl-ud-dīn Khiljī, and in 1300 an army sent by Alā-ud-dīn, both besieged the place without success. Alā-ud-dīn then proceeded in person against the fort, and eventually took it in 1301, putting the Rājā, Hamīr Deo Chauhān, and the garrison to the sword. It was subsequently wrested from the sovereign of Delhi, perhaps during the distractions consequent on the invasion of Tīmūr at the close of the fourteenth century, and in 1516 is mentioned as belonging to Mālwā. Shortly afterwards it was taken by Rānā Sangrām Singh of Mewār, but it was made over to the emperor Bābar

in 1528. About twenty-five years later its Musalmān governor surrendered it to the chief of Būndi, and it passed into the possession of Akbar about 1569. Accounts differ as to the manner in which this came about. According to the Musalmān historians, the emperor besieged it in person and took it in a month; but the Būndi bards say that the siege was ineffectual, and that he obtained by stratagem what he had failed to secure by force of arms. In Akbar's reign Ranthambhor became the first *sarkār* or division in the province of Ajmer, and consisted of no less than eighty-three *mahāls* or fiefs, in which were included not only Kotah and Būndi and their dependencies, but most of the territory now constituting the State of Jaipur. On the decay of the Mughal empire, towards the end of the seventeenth century, the fort was made over by its governor to the Jaipur chief, to whom it now belongs.

Rāprī.—Village in the Shikohābād *tahsīl* of Mainpurī District, United Provinces, situated in 26° 58′ N. and 78° 36′ E., in the Jumna ravines, 44 miles south-west of Mainpurī town. Population (1901), 900. The importance of Rāprī lies in its past history. Local tradition ascribes its foundation to Rao Zorāwar Sen, also known as Rāpar Sen, whose descendant fell in battle against Muhammad Ghorī in A.D. 1194. Mosques, tombs, wells, and reservoirs mark its former greatness; and several inscriptions found among the ruins have thrown much light on the local history. The most important of these dates from the reign of Alā-ud-dīn Khiljī. Many buildings were erected by Sher Shāh and Jahāngīr; and traces of the gate of one of the royal residences still exist, indicating that Rāprī must at one time have been a large and prosperous town. Rāprī has always been important as commanding one of the crossings of the Jumna; and a bridge of boats is maintained here, forming one of the main routes to the cattle fair at BATESAR in Agra District, which is one of the largest in the United Provinces.

Rāptī [identified by Lassen with the *Solomatis* of Arrian = Skt. *Sarāvatī*; by Pargiter with the *Sadānīra* ('ever-flowing') of the epics; also called *Irāvati* ('refreshing')].—River which rises in the lower ranges of Nepāl (27° 49′ N., 82° 44′ E.), and joins the GOGRA in Gorakhpur District of the United Provinces. Its course is first south and then north-west and west, after which it again turns south and crosses the border of Oudh in Bahraich District. It then flows south-east or south through Bahraich, Gondā, Bastī, and Gorakhpur Districts, with a total course of about 400 miles. Its wide bed is confined within high banks, but the actual channel shifts considerably. Floods are not uncommon, but do little damage, if they subside in time for spring crops to be sown, as the silt deposited acts as a fertilizer. The feeders of this river are chiefly small rivers rising in the *tarai* north

of its course, the largest being the Dhamela, joined by the Ghūnghī, and the Rohini, in Gorakhpur. In Gondā and Bastī an old bed of the river, called the Būrhī Rāptī, some miles north of its present course, brings down a considerable amount of water in the rains. The Bakhira Lake in Bastī District and the Chilūā lake in Gorakhpur drain into it. The Rāptī is navigable for small boats as high as Bhingā in Bahraich, and for large boats to the town of Gorakhpur, which stands near its banks. Much timber and grain from Nepāl and the British Districts which it traverses are carried down into the Gogra, and thence into the Ganges; but the traffic has fallen off since the extension of the Bengal and North-Western Railway. The Rāptī is rarely used for irrigation.

Rāpūr.—*Tāluk* in the south-west of Nellore District, Madras, lying between 14° 7′ and 14° 31′ N. and 79° 21′ and 79° 51′ E., with an area of 596 square miles. The population in 1901 was 70,130, compared with 61,311 in 1891. The *tāluk* contains 112 villages, of which Rāpūr is the head-quarters. The demand on account of land revenue and cesses in 1903-4 amounted to Rs. 1,55,000. The Velikonda range forms the western boundary; and Penchalakonda (3,635 feet), one of the peaks in this, is the highest point in the District. There are also some scattered hills. The Kandleru and Venkatagiri rivers, which rise in the Velikondas, drain the *tāluk*. The former runs through the centre and empties itself into the Kistnapatam backwater after passing through Gūdūr. It is navigable up to 25 miles from the sea at all seasons by boats drawing not more than 4 or 5 feet. The *tāluk* possesses many 'reserved' forests, but they mostly contain very poor growth. The soil is black and loamy in parts, but there is much sterile stony land. Wells are deep and costly, and irrigation is mostly from rain-fed tanks. The Tungabhadra-Penner irrigation project, which is now under investigation, would command a good deal of the *tāluk*. *Cholam*, *rāgi*, *cambu*, rice, tobacco, and chillies are the principal crops. Timber and tanning and dyeing barks are the chief natural products.

Rārh.—Ancient name of a portion of Bengal, west of the Bhāgīrathi river. This was one of the four divisions created by king Ballāl Sen, the others being Bārendra between the Mahānandā and Karatoyā rivers, Bāgri or South Bengal, and Banga or East Bengal. Rārh corresponded roughly with the kingdom of Karna Suvarna, and with the modern Districts of Burdwān, Bānkurā, western Murshidābād, and Hooghly.

Rāsipur.—Town in the District and *tāluk* of Salem, Madras, situated in 11° 28′ N. and 78° 11′ E., in the fertile valley between the Bodamalais and the Kollaimalais. Population (1901), 11,512. Silk and cotton cloths are extensively woven here, and large iron

boilers for the manufacture of jaggery (coarse sugar) and brass and bell-metal vessels of all kinds are made.

Rasrā Tahsīl.—Western *tahsīl* of Balliā District, United Provinces, comprising the *parganas* of Lakhnesar, Sikandarpur (West), Kopāchīt (West), and Bhadaon, and lying between 25° 46′ and 26° 11′ N. and 83° 38′ and 84° 3′ E., with an area of 433 square miles. Population fell from 307,645 in 1891 to 288,226 in 1901, the decrease being the most considerable in the District. There are 697 villages and two towns, including RASRĀ (population, 9,896), the *tahsīl* head-quarters. The demand for land revenue in 1903–4 was Rs. 1,97,000, and for cesses Rs. 54,000. The density of population, 666 persons per square mile, is the lowest in the District. The *tahsīl* stretches from the Gogra on the north to the Chhotī Sarjū on the south, and is also drained by the Budhī or Lakhrā, a small stream. Sugar-cane and rice are more largely grown here than in other parts of the District. The area under cultivation in 1903–4 was 270 square miles, of which 167 were irrigated. Wells supply about four-fifths of the irrigated area, and tanks and streams most of the remainder.

Rasrā Town.—Head-quarters of the *tahsīl* of the same name in Balliā District, United Provinces, situated in 25° 51′ N. and 83° 52′ E., on the Bengal and North-Western Railway. Population (1901), 9,896. Rasrā is a thriving, well-laid-out town, and is commercially the most important place in the District. It is the head-quarters of the Sengar Rājputs, and contains a large tank surrounded by a grove sacred to Nāth Bābā, their patron saint. Near the tank are some scores of earthen mounds which are memorials of *satīs*. Rasrā is administered under Act XX of 1856, with an income of about Rs. 2,400. Sugar, hides, and carbonate of soda are exported, and cotton cloth, iron, and spices are imported for local distribution. During the rains a good deal of traffic passes by the Chhotī Sarjū. The town contains a dispensary, and a school with about 80 pupils.

Ratangarh.—Head-quarters of a *tahsīl* of the same name in the Sūjāngarh *nizāmat* of the State of Bīkaner, Rājputāna, situated in 28° 5′ N. and 74° 37′ E., about 80 miles almost due east of Bīkaner city, and 10 miles from the Shekhāwati border. Population (1901), 11,744. The town was founded on the site of a village named Kolāsar by Mahārājā Sūrat Singh at the end of the eighteenth century, and was improved by his successor, Ratan Singh, who gave it his name. It is surrounded by a stone wall and possesses a small fort, a neatly laid out and broad bazar, some fine houses (the property of wealthy Mahājans), a combined post and telegraph office, a vernacular school attended by 70 boys, and a hospital with accommodation for 7 in-patients.

Ratanmāl.—*Thakurāt* in the BHOPĀWAR AGENCY, Central India.

Ratanpur.—Town in the District and *tahsīl* of Bilāspur, Central

Provinces, situated in 22° 17′ N. and 82° 11′ E., 16 miles north of Bilāspur town by road. It lies in a hollow below some hills. Population (1901), 5,479. Ratanpur was for many centuries the capital of Chhattīsgarh under the Haihaivansi dynasty, its foundation being assigned to king Ratnadeva in the tenth century. Ruins cover about 15 square miles, consisting of numerous tanks and temples scattered among groves of mango-trees. There are about 300 tanks, most of them very small, and filled with stagnant, greenish water, and several hundred temples, none of which, however, possesses any archaeological importance. Many *satī* monuments to the queens of the Haihaivansi dynasty also remain. Ratanpur is a decaying town, the proximity of Bilāspur having deprived it of any commercial importance. It possesses a certain amount of trade in lac, and vessels of bell-metal and glass bangles are manufactured. Its distinctive element is a large section of lettered Brāhmans, the hereditary holders of rent-free villages, who are the interpreters of the sacred writings and the ministers of religious ceremonies for a great portion of Chhattīsgarh. The climate is unhealthy, and the inhabitants are afflicted with goitre and other swellings on the body. The town contains a vernacular middle school, with branch schools.

Ratānpur Dhāmanka.—Petty State in Kāthiāwār, Bombay.

Ratesh.—A fief of the Keonthal State, Punjab, situated in 31° 3′ N. and 77° 25′ E., with an area of 12 square miles. The population in 1901 was 449, and the revenue is about Rs. 625. The present chief, Thākur Hīra Singh, exercises full powers, but sentences of death require the confirmation of the Superintendent, Simla Hill States.

Rāth Tahsīl.—North-western *tahsīl* of Hamīrpur District, United Provinces, comprising the *parganas* of Jalālpur and Rāth, and lying between 25° 28′ and 25° 56′ N. and 79° 21′ and 79° 55′ E., with an area of 574 square miles. Population fell from 126,920 in 1891 to 125,731 in 1901, the decrease being the smallest in the District. There are 179 villages and one town, Rāth (population, 11,424), the *tahsīl* head-quarters. The demand for land revenue in 1904–5 was Rs. 2,64,000, and for cesses Rs. 44,000. The density of population, 219 persons per square mile, is the highest in the District. The *tahsīl* is enclosed on the west by the Dhasān, on the north by the Betwā, and on the east by the Birmā. The centre contains rich black soil; but the north-east includes some of the poorest land in the District, and ravines occupy a large area. In 1903–4 only 2 square miles were irrigated, out of 329 square miles under cultivation. It is proposed to irrigate this *tahsīl* by a canal from the Dhasān.

Rāth Town.—Head-quarters of the *tahsīl* of the same name in Hamīrpur District, United Provinces, situated in 25° 36′ N. and 79° 34′ E., 50 miles south-west of Hamīrpur town. Population (1901),

11,424. The early history of the place is uncertain. It stands on a site which is evidently of great antiquity; but the Musalmāns who occupied it early destroyed most of the Hindu buildings. Rāth contains several mosques, temples, and tanks adorned with extensive *ghāts*, the finest lake being called Sāgar Tāl. There are ruins of two Musalmān tombs which were built, probably about the fourteenth century, from fragments of Hindu temples, and also remains of two forts built by Bundelā chiefs late in the eighteenth century. The town is administered under Act XX of 1856, with an income of about Rs. 3,000. It is the most important mart in the District, and deals in grain, cotton, and sugar. There are small industries in weaving, dyeing, and saltpetre manufacture; but trade is decreasing. The town contains a branch of the American Mission, a dispensary, and a school with 189 pupils.

Rathedaung.—Township of Akyab District, Lower Burma, lying between 20° 15′ and 21° 27′ N. and 92° 25′ and 92° 52′ E., with an area of 1,269 square miles. The population was 92,933 in 1891, and 113,098 in 1901. It comprises the whole of the valley of the Mayu river, lies for the most part low, and is the most populous and growing township in the District. There are 545 villages; and the head-quarters are at Rathedaung (population, 1,189), on the eastern bank of the Mayu river. The area cultivated in 1903–4 was 237 square miles, paying Rs. 3,67,000 land revenue. The township was split up in 1906 into Rathedaung and BUTHIDAUNG. The reduced charge has an area of 506 square miles and a population (1901) of 53,332.

Ratlām State.—A mediatized State in the Mālwā Agency of Central India. The territory, which lies between 23° 6′ and 23° 33′ N. and 74° 31′ and 75° 17′ E., is inextricably intermingled with that of SAILĀNĀ, and boundaries are in consequence not clearly definable. Generally speaking, the State touches the territories of Jaorā and Partābgarh (in Rājputāna) on the north; Gwalior on the east; Dhār and Kushālgarh (in Rājputāna) and parts of Indore on the south; and Kushālgarh and Bānswāra (in Rājputāna) on the west. It has an area of 902 square miles, of which 501 have been alienated in *jāgīrs* and other grants, only 401 square miles, or 44 per cent., being *khālsa* or directly held by the State. Besides this, 60 villages, with an approximate area of 228 square miles, are held by the Rao of Kushālgarh in Rājputāna, for which a *tānka* of Rs. 600 is paid to the Ratlām Darbār.

The name is popularly said to be derived from that of Ratan Singh, the founder. This is, however, a mistake, as Ratlām was already in existence before Ratan Singh obtained it, and is mentioned by Abul Fazl in the *Ain-i-Akbarī* as one of the *mahāls* in the Ujjain *sarkār* of the Mālwā *Sūbah*.

The State lies geologically in the Deccan trap area, and the soil

is formed chiefly of the constituents common to this formation, basalt predominating, together with the black soil which always accompanies it. An outcrop of Vindhyan sandstone occurs close to Ratlām town, and is quarried for building purposes.

The Rājās are Rāthor Rājputs of the Jodhpur house, being descended from Rājā Udai Singh (1584–95), one of whose great-grandsons, Ratan Singh, founded the house of Ratlām. The date of Ratan Singh's birth is uncertain, but occurred about 1618. The popular tradition which accounts for the rise in favour of Ratan Singh with the emperor Shāh Jahān tells how, when armed only with a *katār* (dagger), he encountered and slew an infuriated elephant which was causing havoc in the streets of Delhi. This deed was witnessed by the emperor, who, in reward, granted Ratan Singh a *jāgīr* worth 53 lakhs. In sober fact, however, this *jāgīr* appears to have been awarded for good service against the Usbegs at Kandahār and the Persians in Khorāsān in 1651–2. Ratan Singh was at the same time made a commander of 3,000, and granted the usual insignia of royalty and title of Mahārājā. About six years after assuming charge of the *jāgīr*, he was called upon to join Rājā Jaswant Singh of Jodhpur, who was marching to oppose Aurangzeb and Murād. In the battle fought at Dharmatpur close to Ujjain, in 1658, Ratan Singh was killed. Dharmatpur has since been known as Fatehābād, and is now a junction on the Rājputāna-Mālwā Railway. Ratan Singh's cenotaph stands near the village. As a result of this action, the fortunes of the family declined and they lost much territory. About the end of the reign of Rājā Chhatarsāl, one of the sons of Ratan Singh, the State became split up into three portions. Kesho Dās, a nephew of Chhatarsāl, obtained possession of SĪTĀMAU, Chhatarsāl's eldest son Kesrī Singh succeeding to Ratlām, and Pratāp Singh, a younger son of Chhatarsāl, obtaining Raotī. Dissensions arising later on, the emperor intervened and upheld the claim of Mān Singh, Kesrī Singh's son, to the State. Mān Singh then conferred the *jāgīr* of Raotī on his brother Jai Singh, who founded the SAILĀNĀ State. In the eighteenth century the country was overrun by the Marāthās, and Rājā Padam Singh became tributary to Sindhia. Further incursions by Jaswant Rao Holkar made punctual payment of Sindhia's tribute impossible, and Bāpu Sindhia, who had been sent to enforce its payment, ravaged the State. Rājā Parvat Singh, driven to desperation, determined to resort to arms, and inflicted a severe defeat on Sindhia. Subsequent bloodshed was averted by the intervention of Sir John Malcolm, who in 1819 mediated on behalf of the State, and guaranteed the payment of the tribute of Rs. 46,000 due to Sindhia, on which that chief agreed not to interfere in any way with the internal management of Ratlām. This tribute is now paid to the British Government under the treaty made with Sindhia in 1860. Rājā

Balwant Singh was on the *gaddi* during the Mutiny, when he rendered conspicuous services, in recognition of which his successor received a *khilat* and the thanks of Government. The late chief, Ranjīt Singh, succeeded in 1864 as a minor, the State remaining under superintendence till 1880. By careful management the 10 lakhs of debt with which the State had been burdened was paid off, and 6 lakhs in addition was spent in improvements. In 1864 an arrangement was made for the cession, free of compensation, of all land required by railways. In 1881 all transit dues on salt were abolished by Rājā Ranjit Singh, compensation to the extent of Rs. 1,000 per annum being allowed; and in 1885 the chief abolished all remaining transit dues, except those on opium. By an arrangement made in 1887 regarding the collection of customs in Sailānā, the Ratlām Darbār, in consideration of the payment of a fixed sum yearly, waived its right to levy the dues in Sailānā territory. Rājā Ranjīt Singh was created a K.C.I.E. in 1887, and died in 1893, when his son, the present chief, Rājā Sajjan Singh, succeeded. He was educated at the Daly College at Indore, and in 1903 joined the Imperial Cadet Corps. The State remained under management till 1898. The chief has the titles of His Highness and Rājā, and receives a salute of 11 guns.

The population of the State was: (1881) 87,314, (1891) 89,160, and (1901) 83,773. It contains one town, RATLĀM (population, 36,321), the capital; and 206 villages. Hindus number 52,288, or 62 per cent.; Animists (chiefly Bhīls), 14,002, or 16 per cent.; Musalmāns, 10,693, or 12 per cent.; and Jains, 6,452. The total population has decreased by 6 per cent. during the last decade, while the rural population has decreased by 17·6 per cent., owing to the effects of famine. The density of population, excluding the town of Ratlām, is 54 persons per square mile. The principal dialect is Mālwī (or Rāngrī), spoken by 70 per cent. of the population. About 40 per cent. of the total are supported by agriculture and 12 per cent. by general labour. The Canadian Presbyterian Mission has a station in the capital. The State was attacked by plague in 1902, 1,849 deaths occurring in the town between November of that year and March, 1903. In 1904 there were 2,000 deaths from the same cause.

The soil of the plateau portion of the State is mainly of the black cotton variety, and bears good crops. Of the total area, 182 square miles, or 20 per cent., are under cultivation, 11 square miles being irrigated; 55 square miles, or 6 per cent., are under forest; and 388 square miles, or 43 per cent., cultivable but lying fallow; the remainder is irreclaimable waste.

Wheat occupies 54 square miles, or 24 per cent. of the total cropped area; *jowār*, 46 square miles, or 21 per cent.; maize, 25 square miles, or 11 per cent.; gram, 23 square miles, or 10 per cent.; cotton,

23 square miles, or 10 per cent.; poppy, 11 square miles, or 5 per cent.

The chief trade routes are the Ratlām-Godhra branch of the Bombay, Baroda, and Central India Railway and the Rājputāna-Mālwā Railway. There are about 14 miles of metalled roads in and around Ratlām town. The other metalled roads in the State are 25 miles of the Mhow-Nīmach road, and 8 miles of the Nāmlī-Sailānā road. British post offices are maintained at Ratlām town and railway station, and at Nāmlī station, and a telegraph office at Ratlām, combined with the post office, as well as at all railway stations.

The State is, for administrative purposes, divided into two *tahsīls*, Ratlām and Bājna, each under a *tahsīldār*. It is administered directly by the chief, assisted by the *dīwān* and the usual departmental officers. The chief has full powers in all civil and general administrative matters. In criminal cases his powers are those of a Sessions Court, subject to the proviso that all sentences involving death, transportation, or imprisonment for life must be referred to the Agent to the Governor-General for confirmation.

The normal revenue amounts to 5 lakhs, of which 2·9 lakhs is derived from land; Rs. 67,000 from customs; Rs. 34,300 from tribute paid by feudatory *thākurs*; and Rs. 1,000 from compensation paid by the British Government for abolition of transit dues on salt. The income of alienated lands is 4·4 lakhs. The chief heads of expenditure are: charges in respect of land revenue, Rs. 42,500; chief's establishment, Rs. 56,000; general administration, Rs. 65,600; police, Rs. 72,400; tribute to British Government, Rs. 42,700; public works, Rs. 20,000.

Of the total area of the State, 456 square miles, or 51 per cent., have been alienated in *jāgīr* holdings, which comprise 124 square miles, or 68 per cent. of the total cultivated area, but contribute only Rs. 34,300 towards the revenue. The incidence of the land revenue demand is Rs. 4–11–3 per acre of cultivated area, and R. 1 on the total area. Proprietary rights in land are not recognized. The system of farming villages previously in force throughout the State is now applied only to villages which cannot be managed directly owing to paucity of cultivators. An assessment by the plough (*hāl*) called *hālbandi* is made in the hilly tract. The revenue of *khālsa* lands is assessed according to the nature of the soil and its capability for being irrigated.

The first settlement for revenue purposes was made in 1867 for ten years, the demand being 8·2 lakhs, and each village being regularly surveyed. In 1877 a fresh survey was made; the average rates per acre were Rs. 28 for irrigated and Rs. 3–13 for 'dry' land, showing an increase in the demand of 31 per cent. A third settlement was started in 1895, but was never completed.

The State has never had a silver coinage of its own, and before the introduction of the British rupee as legal tender, in 1897, carried on its transactions in various local currencies, the commonest being the *Sālim shāhi* rupee coined in Partābgarh (Rājputāna). Copper has long been coined, and is still issued.

The State army consists of a body of regular cavalry of 12 men, who form the chief's personal guard, and of 100 regular infantry (*tilangas*), who furnish guards for the palace and offices. About 100 irregular cavalry and 115 irregular infantry act as police. There are 5 serviceable guns, manned by 12 gunners. The regular police force consists of 235 men under a superintendent for the town, and 197 constables for rural areas. The head-quarters jail is in Ratlām town, while a local jail is maintained at Bājna.

The first State school for boys was opened in 1864. In 1870 a girls' school was started, and in 1872 the Ratlām Central College. A hospital is kept up in Ratlām town and a dispensary at Bājna. Vaccination is regularly carried out.

Ratlām Town.—Capital of the State of the same name in Central India, situated in 23° 19′ N. and 75° 3′ E., 411 miles distant from Bombay. The town stands at an elevation of 1,577 feet above sea-level, and is clean and well laid out. It contains no buildings of any importance, the most imposing edifice being the Rājā's palace. A large number of Jain religious establishments (*thānak*) exist in the place. Population has been: (1881) 31,066, (1891) 29,822, and (1901) 36,321. Hindus form 60 per cent. of the total; Musalmāns, 29 per cent.; and Jains, 11 per cent. Christians number as many as 282, owing to the presence of the Canadian Presbyterian Mission settlement. The addition of the population within railway limits increases the number of Christians to 429. Besides the Central College there are 50 other educational establishments, State and private, in the town. The chief public buildings are the British post and telegraph office, a *dāk*-bungalow, and a State guesthouse. The last building is situated in the centre of a public garden, where a small zoological collection is kept up. Ratlām is the junction for the Rājputāna-Mālwā Railway and the Ratlām-Baroda branch of the Bombay, Baroda, and Central India Railway.

Ratnāgiri District.—A District in the Southern Division of the Bombay Presidency, lying between 15° 44′ and 18° 4′ N. and 73° 2′ and 73° 57′ E., with an area of 3,998 square miles. It is bounded on the north by the State of Janjīra and Kolāba District; on the east by Sātāra District and the State of Kolhāpur; on the south by the State of Sāvantvādi and the Portuguese Possessions of Goa; and on the west by the Arabian Sea.

Ratnāgiri may be described generally as rocky and rugged. Near

the coast it consists of bare elevated plateaux, intersected by numerous creeks and navigable rivers, flowing between steep and lofty hills. These rivers have along their banks the chief seaports and almost all the fertile land of the District. Ten miles or so inland the country becomes more open, but a little farther it is occupied by spurs of the Western Ghāts. This range itself forms the continuous eastern boundary, running parallel to the coast, at distances varying from 30 to 45 miles. It varies in height from 2,000 to 3,000 feet, though some of the peaks attain an altitude of 4,000 feet.

Physical aspects.

Both above and below the main range the massive basaltic rocks that crown the Western Ghāts can, with little aid from art, be turned into nearly impregnable fortresses with a liberal supply of the finest water from the springs with which the hills abound. The hills are crossed by numerous passes, which, except the made roads, form the only means of communication with the Deccan. The crests of these passes command some of the most magnificent scenery in India. The lower hills are for the most part bare. Those deserving mention are: beginning from the north, the hog-backed Mandangarh, a ruined fort in Dāpoli commanding a view of Mahābaleshwar; south of this, also in Dāpoli, Pālgarh; farther south, in Khed, the three isolated hills of Mahīpatgarh, Sumārgarh, and Rasālgarh; passing south to Lānja in Rājāpur, Māchāl, a triangular hill, close to the old fort of Vishālgarh, ends in a broad plateau fit for a sanitarium.

The character of the streams that form the river system of Ratnāgiri varies little. They rise in the main range, or in the spurs of the Western Ghāts, and traversing the country along narrow deep-cut ravines enter the Arabian Sea after winding courses of seldom more than 40 miles. The general flow is from east to west, with sometimes a tendency to the south. The abruptness of their windings is a notable feature of the Ratnāgiri rivers. Though of comparatively small size and volume and ill-suited for irrigation, they are of great local value, being navigable for 20 miles or more and having estuaries affording safe anchorage for coasting craft.

The sea-board, about 160 miles in length, from Bānkot or Fort Victoria to a point 2 miles south of Redi Fort, is almost uniformly rocky and dangerous. It consists of a series of small bays and coves shut in between jutting headlands, and edged with sand of dazzling whiteness. At places the hills recede a little, leaving at their base a rich tract of rice-fields, with generally a strip of coco-nut gardens between them and the beach. At intervals of about 10 miles, a river or bay opens, sufficiently large to form a secure harbour for native craft; and the promontories at the river mouths are almost invariably crowned with the ruins of an old fort. At Suvarndrug and Mālvan

rocky islands stand out from the mainland, still preserving the remains of strong Marāthā fortifications. The larger rivers and creeks have deep water for 20 or 30 miles from the coast; and many of the most important towns are situated at their farthest navigable point, for in so rough a country the rivers form the best highways of trade.

The District contains no natural lakes and but few artificial reservoirs of any size, the most notable being those at Dhāmāpur, Varād, and Pendūr in Mālvan and at Chiplūn in the Chiplūn *tāluka*.

Ratnāgiri is occupied almost entirely by the basaltic formation of the Deccan trap overlaid with laterite, except in the southernmost portion near Mālvan, where a substratum of gneiss and of Cuddapah beds appears from beneath the basalt and laterite. Tertiary beds containing fossil plants, the exact age of which is unknown, occur at Ratnāgiri. The remarkably rectilinear sea-coast probably indicates a fault line of comparatively modern origin, and the numerous hot springs which occur in and along a line parallel with the coast may be connected with the formation of this fault. The line of springs runs half-way between the Western Ghāts and the sea, and seems to stretch both north and south of the District. There are similar springs near the towns of RĀJĀPUR, Khed, and Sangameshwar, and at the villages of Arvalli and Tural. The water of all of them seems strongly impregnated with sulphur.

The chief trees of the District are teak, *ain*, *kinjal*, catechu, *shīsham* (*Dalbergia Sissoo*), *mana* (*Lagerstroemia lanceolata*), *taman* (*Lagerstroemia Flos Reginae*), and bamboos. Casuarina has been planted in the Dāpoli *tāluka*; and plantations of this tree would probably thrive on the sandhills of the sea-board. From an economic point of view, the coco-nut palm is the most important tree in the District. Brāhmans and Marāthās either cultivate it themselves or rent it to Bhandāris to be tapped for *tāri*.

Game is scarce in Ratnāgiri District. Tigers, *sāmbar* deer, and bears are few, and have their haunts in the most inaccessible localities. Leopards are not uncommon; wild hog are plentiful, but owing to the nature of the ground hunting them on horseback is impossible. Small deer, antelope, hares, jackals, and foxes abound. Monkeys of the *langūr* species are to be seen about all towns and villages. The flying-fox (or fruit-bat) and musk-rat are common everywhere. The bears are the usual Indian black or sloth species; they inhabit the upper slopes of the Ghāts, living mostly on their favourite food, the fruit of the wild fig-tree. Wolves are unknown, but packs of wild dogs have been seen. As regards its game-birds, Ratnāgiri is an indifferent sporting country; partridges, grouse, and bustard are wanting, while quail are scarce. Duck, snipe, and plover are plentiful. Among birds of prey, the vulture, the falcon, the eagle, and the osprey are found. Owls are

common, as also swallows, kingfishers, and parakeets. Snakes are abundant, of both venomous and harmless kinds. The python is stated to measure 10 to 20 feet, but the species is only occasionally met with. The rock snake, *dhāman* (*Ptyas mucosus*), and the brown tree snake are general. The cobra (*Naga tripudians*) is frequently killed in human habitations. Owing to its nocturnal habits, it is not often seen by daylight. The *fursa* (*Echis carinata*), identical with the *kappa* of Sind, is by far the most common of the venomous snakes found in the District, and is very dangerous. Ratnāgiri is well supplied with sea-fish, and in a less degree with fresh-water fish. Sharks are numerous, and whales are sometimes seen off the sea-board. Sardines swarm on the coast at certain seasons in such abundance as to be used for manure.

The climate of the District, though moist and relaxing, is on the whole healthy. Fifteen miles from the coast extremes of cold and heat are experienced. Dāpoli is generally considered the healthiest station in the District, on account of its equable temperature, excellent drinking-water, and the fine open plain on which it stands. The mean annual temperature of Ratnāgiri town on the sea-coast is 83° and of Dāpoli, 57 miles from the coast, 87°. At the former town the temperature falls as low as 61° in January, and reaches 93° in May. From February to the middle of May strong gusty winds blow from the north-west, which then give place to the south-west monsoon.

The rainfall is abundant and comparatively regular. The south-west monsoon usually breaks on the coast early in June, and the rains continue to the middle or end of October. The fall of rain averages 100 inches at Ratnāgiri and is considerably greater inland than on the coast. The maximum is 166 inches in the Mandangarh *petha*, and the minimum 95 inches in the Devgarh *tāluka*. The cyclone of 1871 swept up the coast with great violence and wrecked numerous small native craft and a steamer, besides causing much damage to houses. Another very violent storm occurred in 1879, in which 150 native vessels were wrecked, with a loss of over 200 lives and about 3 lakhs worth of cargo.

History.

The Chiplūn and Kol caves show that between 200 B.C. and A.D. 50 northern Ratnāgiri had Buddhist settlements of some importance. The country subsequently passed under several Hindu dynasties, of whom the Chālukyas were the most powerful. In 1312 Ratnāgiri was overrun by the Muhammadans, who established themselves at Dābhol; but the rest of the country was practically unsubdued till 1470, when the Bahmani kings gained a complete ascendancy by the capture of Vishālgarh and Goa. About 1500 the whole of the Konkan south of the Sāvitrī came under Bijāpur rule; and, later, war with the Portuguese wrought grievous loss to

Dābhol and other coast towns. The decline of the Portuguese power was accompanied by the rise of that of the Marāthās, who under Sivajī established themselves in Ratnāgiri (1658–80), defeating the Bijāpur armies, repelling the Mughals, and overcoming the Sīdīs and Portuguese. For some years after this the Sīdīs held possession of part of the District. The successes of the pirate Kānhojī Angriā led to his appointment as admiral of the Marāthā fleet, and obtaining part of Ratnāgiri as his principality. In 1745 Tulājī Angriā, one of his illegitimate sons, succeeded to the lands between Bānkot and Sāvantvādi, disavowed the Peshwā's authority, and seized and plundered all the ships he could master. The British, in conjunction with the Peshwā, in 1755 destroyed the piratical forts at Suvarndrug. The following year, after the destruction of the whole of Angriā's fleet, Vijayadrug was taken. For these services Bānkot with nine villages was ceded to the British. In 1765 Mālvan and Reddi were reduced. The former was restored to the Rājā of Kolhāpur, and Reddi was given to the chief of Sāvantvādi. The wars between Kolhāpur and Sāvantvādi, carried on for twenty-three years with varying success, threw the country into great disorder, as each party in turn became supreme. They finally entered into agreements with the British Government, and ceded Mālvan and Vengurla, and arrangements were made for the cession of the Peshwā's dominions in Ratnāgiri. But war breaking out in 1817, the country was occupied by a military force, and the forts were speedily reduced. A small detachment was landed at Ratnāgiri during the Mutiny, but no disturbance occurred. Since the third Burmese War, king Thībaw has been detained there as a state prisoner.

Ratnāgiri contains many forts, some standing on islands, others on headlands and the banks of rivers, while inland natural positions of advantage have been strengthened. The age of most of the forts is hard to fix. Some of them, as Mandangarh, may be as old as the Christian era; but of this the evidence is very slight. Many are said to have been built by Rājā Bhoj of Panhāla at the end of the twelfth century. But most are supposed to be the work of the Bijāpur kings in the sixteenth century, repaired and strengthened in the seventeenth by Sivajī. Like those of the North Konkan, the Ratnāgiri forts were neglected by the Peshwās. In 1818, except for the labour of bringing guns to bear on them, they were easily taken by the British. Nothing was done to destroy the fortifications. But except a few, all are now, from weather and the growth of creepers and wall trees, more or less ruined. There are said to be 365 forts in the District.

Ratnāgiri also contains other Hindu and Musalmān remains. The chief are the underground temple of Chandikābai; an old shrine of Sangameshwar, which is locally believed to date from Parasu Rāma's

time; and the mosque of Dābhol, in a style similar to that of the Bijāpur mosques. In Khārepātan is the only Jain temple found in the Southern Konkan. Copperplates of the Rāshtrakūta dynasty were found here. In the temple in Sindhudrug fort near Mālvan there is an effigy of Sivajī held in the greatest veneration. Prints of Sivajī's hands and feet which appear in the stone walls are held in reverence and protected by small temples. Monday is the chief day of Sivajī's worship, and the Kolhāpur chief sends turbans and other presents.

Population.

The Census of 1872 disclosed a total population of 1,019,136 persons; that of 1881, 997,090; that of 1891, 1,105,926; and that of 1901, 1,167,927.

The following table shows the distribution of population according to the Census of 1901:—

Tāluka.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Dāpoli	500	2	243	154,628	309	− 0.2	6,999
Khed	392	...	146	95,594	244	− 5	3,262
Chiplūn	671	1	208	190,746	284	+ 3	9,500
Ratnāgiri	415	1	147	147,182	355	+ 8	7,263
Sangameshwar	576	...	190	129,412	225	+ 2	4,129
Rājāpur	616	1	181	153,808	250	+ 9	6,595
Devgarh	525	...	119	143,750	274	+ 12	8,280
Mālvan	238	1	58	107,944	454	+ 17	9,539
Vengurla	65	1	9	44,863	690	+ 14	5,879
District total	3,998	7	1,301	1,167,927	292	+ 6	61,446

The principal towns are MĀLVAN, VENGURLA, RATNĀGIRI (the head-quarters), and CHIPLŪN. Marāthī (including the Konkanī dialect) is spoken by 99 per cent. of the population. Classified according to religion, Hindus form 92 per cent. of the total and Musalmāns 7 per cent.

The Konkanasth or Chitpāvan Brāhmans (31,000) and the Karhādas (14,000) form the major portion of the Brāhman population (68,000). The Chitpāvans, so called from Chitapolan, the old name of Chiplūn, are acute and intelligent, and rose to great prominence in the days of Marāthā power, the Peshwā himself being a Chitpāvan Brāhman. The Karhādas are named after KARĀD in Sātāra District. Vānīs (36,000) are the most numerous of the trading castes; but the Bhātias, who have settled in the District within the last seventy years from Bombay and Cutch, are the most enterprising. Of husbandmen, the majority are Marāthās and Marāthā Kunbīs (287,000); Shindes (13,000), who are descendants of Brāhmans and female slaves; and Gaudas (11,000), who seem to be a class of Marāthās formerly holding the position of village headmen. The Bhandāris or palm-tappers (86,000) are chiefly

found along the coast. They were formerly employed as fighting men, and are referred to in the early records of the British in Bombay as 'Bhandareens.' Of artisans, the chief are Telis or oil-pressers (20,000), Sutārs or carpenters (18,000), Sonārs or goldsmiths (16,000), and Kumhārs or potters (13,000). Guravs, wandering musicians (19,000), are found throughout the District. Gaulis (15,000), are cattle-keepers, and Gābits (19,000) mostly sea-fishers and sailors. The other sailors and fishermen are either Muhammadans or Hindus of the Bhandāri and Kolī castes. They are distinguished by their independent habits and character, and are in better circumstances than the agricultural population. Chamārs (12,000) are shoemakers and saddlers. Rājāpur Chamārs have a local reputation for their skill in making sandals. Mahārs (90,000) are found throughout the District. Of the Muhammadans, the most noticeable are those known in Bombay under the general name of Konkani Muhammadans, whose head-quarters are at Bānkot. They hold a few rich villages on the Sāvitrī river, and say that they are descended from Arab settlers at Dābhol, Chaul, and other towns in the Konkan. Some of them can give particulars of the immigration of their forefathers, and the features of many have a distinctly Arab cast.

About 76 per cent. of the population are supported by agriculture. The industrial classes, numbering in all 75,000, are mainly toddy-drawers (4,600), weavers (6,000), and fishermen including fish-dealers (44,000). Under British rule, the Southern Konkan has always been the great recruiting ground of the Bombay Presidency. To Ratnāgiri's clever, pushing upper classes, to its frugal, teachable middle classes, and to its sober, sturdy, and orderly lower classes Bombay city owes many of its ablest officials and lawyers, its earliest and cleverest factory workers, its most useful soldiers and constables, and its cheapest and most trusty supply of unskilled labour. In 1872 Bombay city contained 71,000 persons born in Ratnāgiri District, while by 1901 the number had increased to 145,000. About the year 1864, before Bombay offered so large a market for labour, numbers went from Ratnāgiri to Mauritius; but this emigration has almost entirely ceased.

Of the 4,929 native Christians enumerated in 1901, 4,232 were Roman Catholics, chiefly descended from the wholesale conversions made during the time of Portuguese domination. After the introduction of British rule the Scottish Missionary Society was the first to establish a mission, choosing Bānkot as their station, to which they soon after added Harnai. In 1830 the mission head-quarters were moved to Poona, and in 1834 the Ratnāgiri mission was abandoned. About twenty-five years later the American Presbyterian Board constituted Ratnāgiri a station of the Kolhāpur mission. At present Dāpoli is the head-quarters of the Church of England Mission, established in 1878,

which maintains two orphanages, one for boys with 25 inmates and one for girls with 14, a high school with 159 pupils, and a vernacular school with 23 pupils. It also manages two vernacular schools for girls with 69 pupils. The American Presbyterian Mission, with its head-quarters at Ratnāgiri, maintains five schools with 200 pupils, including one for girls, an orphanage containing 32 boys and 32 girls, and a home for destitute widows with 13 inmates. It opened a branch at Vengurla in 1900. A considerable number of native Christians are found in Harnai, Mālvan, Vengurla, and other coast towns.

Agriculture.

Fertile land is found along the banks of the rivers or salt-water creeks in the neighbourhood of the sea; but the soil is generally poor, consisting in great measure of a stiff ferruginous clay, often mixed with gravel. Neither wheat nor cotton is grown. There are several coco-nut plantations in the District, and *san*-hemp is grown by the fishermen for net-making. The better kinds of rice land produce also second crops of some description of pulse or vegetable. By far the greater proportion of the food-crops consist of inferior coarse grains, such as *harik*, *rāgi*, and *vari*, grown on *varkas* soil in the uplands. The *varkas* lands may be divided into the more level parts, *mal*, where the plough can be used; and the steeper slopes, *dongri*, admitting only of cultivation by manual labour. The best of the poorer soils bear crops for five or six successive years, and then require a fallow of from three to twelve years.

The District contains 521 square miles held on the *ryotwāri* system; *khots*, who rent villages from Government, occupy 269 square miles, while *inām* and *jāgīr* lands measure 367 square miles. The chief statistics of cultivation in 1903-4 are shown below, in square miles:—

Tāluka.	Total area.	Cultivated.	Irrigated.	Cultivable waste.	Forests.
Dāpoli	499	62	1	26	0·7
Khed	392	85	...	28	7·8
Chiplun	671	19	...	7	...
Ratnāgiri	415	68	1	48	0·4
Sangameshwar	569	53	...	25	4·7
Rājāpur	616	57	1	45	0·2
Devgarh	526	41	1	36	...*
Mālvan	238	135	8	65	1·0
Vengurla	65	40	3	18	...*
Total	3,991†	560	15	298	14·8

* The area covered by forests is about 10 acres in the Vengurla and Devgarh *tālukas*.

† Statistics are available for only 3,108 square miles of this area. The figures in the table are based on the latest information.

Rice, almost entirely of the 'sweet land' variety, occupies about 290 square miles. It is an important crop in the southern *tālukas*, especially in Mālvan. Next in importance come *rāgi*, *kodra*, and *vari*,

occupying 48, 33, and 21 square miles respectively. These grains are eaten by the poorer classes. Of pulses, which occupy 24 square miles, the chief is *kulith* (16 square miles), grown in the southern portion of the District, especially in Mālvan. Oilseeds, chiefly niger-seed, occupy 12 square miles. Chillies are raised in small quantities as a 'dry-season' crop. Sugar-cane is cultivated in all parts of the District, except Khed and Chiplūn. *Tāg* or *san*-hemp (3 square miles) occupies a considerable area, and is used chiefly for making fishing-nets, twine, ropes, gunny, and paper. The remaining agricultural products of the District are coco-nuts and areca-nuts, both of which are exported in considerable quantities.

Since 1818 experiments have been undertaken with a view to introducing the cultivation of cotton into the District, but without success. The only real improvement of late years has been the conversion of considerable areas of inferior soil into rice and garden land. Under the Land Improvement and Agriculturists' Loans Acts over 1·5 lakhs has been advanced to cultivators since 1894–5. Of this sum, Rs. 34,000 was lent in 1896–7, Rs. 25,000 in 1899–1900, and Rs. 22,000 in 1900–1.

The pasturage of the District being poor and devoid of nutriment, the local breed of cattle is inferior. Sheep imported from the grazing grounds above the Ghāts deteriorate rapidly, and horses quickly lose condition. Goats, though of inferior breed, appear to thrive. The only imported breed of cows or buffaloes is from Jāfarābād in South Kāthiāwār. Sheep are kept by butchers and goats by Brāhmans for milk; no care is bestowed on their breeding. Donkeys are rarely kept by any but the vagrant tribes.

Of the total cultivated area in 1903–4, only 15 square miles, or 0·3 per cent., were irrigated, the areas from various sources being tanks 1 square mile, wells 7 square miles, and other sources 7 square miles. Of the irrigated area, nearly 5 square miles were under rice. Irrigation is chiefly from wells and watercourses, as the tidal influence passes so far inland as to make the rivers useless for irrigation. The District contains 6,501 wells and 43 tanks used for irrigation. No ponds or reservoirs are large enough to be used in watering fields, except a few in Mālvan.

In the early days of British occupation, the region round Bānkot creek was clothed with fine teakwood. Curved teak logs, known as 'Bānkot knees,' were largely exported to Bombay; and from Bānkot came most of the stout ribs and frameworks of the old Indian navy. The Marāthās had shipbuilding yards at Mālvan and Vijayadrug, and showed a prudent regard for forest preservation. After the transfer of the District from the Peshwā in 1818, cultivation greatly increased, and the larger part of the District was laid bare. In 1829 the forests were

left to the people for unrestricted use; and in consequence enormous quantities of timber were felled and dispatched to the Bombay market. The effect of this treatment has left Ratnāgiri denuded of forest to the present day. The village groves along the coast are well supplied with mango, oil-nut (*Calophyllum Inophyllum*), and jack-trees. Active measures of late years have been adopted to preserve and extend the forest area. The District contains 19[1] square miles of forest, the whole of which is 'reserved' and is in charge of the Revenue department. The Government Reserves are in the Dāpoli, Khed, Rājāpur, and Mālvan *tālukas*. The receipts in 1903-4 from the sale of teak and firewood in Ratnāgiri District were Rs. 1,000, out of a total revenue of Rs. 1,200.

According to a legend, the truth of which is rendered probable by the presence of quartz, gold used to be extracted near Phonda, at the foot of the Western Ghāts. In the south very pure specular iron is associated in small quantities with the quartz rock. All the laterite of the District is charged with iron, though in proportions too small to make it worth smelting. Near Mālvan iron is found in detached masses on the tops of hills. In former times the Mālvan mines and those of Gothna, a village above the Ghāts, were much worked; and as late as 1844 the smelting of iron was carried on at Masura, Kālāvali, Varangaon, and some other villages. The other mineral products are talc, stone for road-metal, sand, clay, and lime.

Trade and communications.

Agriculture is the chief industry, but in a few towns and villages *sārīs* and coarse woollen blankets are woven. In the town of Rājāpur *gulāl* (red powder) is made. In Vijayadrug, Devgarh, and a few of the neighbouring villages bison horn is worked up into ornaments, while Ratnāgiri town is celebrated for the inlaid furniture made at its school of industry. Two oil-presses, one at Chiplūn and the other at Mālvan, appear to work profitably. A few cups and bowls of soapstone are also made in the Mālvan *tāluka*. At Shiroda are 27 salt-works producing about 56,000 maunds of salt.

In the seventeenth century the pepper and cardamom trade brought English traders to Rājāpur, and there was also some traffic in calico, silk, and grain. During the disorders of Marāthā rule trade declined, and in 1819 there was very little except imports of salt and exports of grain. At present grain, cotton, and sugar are brought down from beyond the Ghāts to the sea-coast for exportation by bullock-carts, which usually return with a freight of coco-nuts, salt, and dried fish. Steamers from Bombay call regularly at the ports in the fair season, bringing piece-goods and stores, and taking back coco-nuts, rice, and areca-nuts from Vengurla and Ratnāgiri. The local shipping traffic has

[1] This figure is taken from the Forest Administration Report for 1903-4.

suffered through the competition of steamers; but a large trade is still carried on by this means with the Malabar coast, Cutch, Kāthiāwār, and Karāchi.

The Ratnāgiri sea-board contains thirteen ports and harbours. They are of two classes: coast ports on sheltered bays and river mouths; and inland ports up tidal creeks, generally at the point where navigation ceases. Bānkot, Harnai, Devgarh, Dābhol, Sangameshwar, Ratnāgiri, Rājāpur, Mālvan, and Vengurla are places of some trade and consequence; the rest are insignificant. The ports are grouped for customs purposes into seven divisions: Anjanvel, Bānkot, Jaitāpur, Mālvan, Ratnāgiri, Shiroda, and Vengurla. The total value of the sea-borne trade of the ports in the District amounted in 1876 to 23 lakhs, of which 9 lakhs represented the exports and 14 lakhs the imports; and in 1903–4 to 68 lakhs exports, and 99 lakhs imports.

In 1852 there were not even bullock-tracks from many villages to the nearest market towns, and the produce sent for sale was carried upon men's heads. Of late years many improvements have been made. In 1903–4 there were 479 miles of metalled roads and 790 miles of unmetalled roads in the District. Of these, 394 miles of metalled road are maintained by the Public Works department, and the remainder by the local authorities. Avenues of trees are planted along 257 miles. The main road runs north and south, passing through the chief inland trade centres and crossing the different rivers above the limit of navigation. From it cart-roads lead to the four chief openings across the Ghāts. During the fair season the District is served by steamers of the Bombay Steam Navigation Company, while in the monsoon communication is maintained via the Amba *ghāt* and the Southern Mahratta Railway.

Famine.

Since the beginning of British rule there has been no year of distress so severe and general as to amount to famine. Of only two of the older famines, those of 1790 and 1802–3, does any information remain. Both of these seem to have been felt all over the Konkan. In 1824 a very light rainfall was followed by a complete failure of crops in high grounds and a partial failure in low rice lands. In 1876 an insufficient rainfall caused a serious loss of crops, but not actual famine. Public health was bad, and there was considerable distress, Rs. 77,000 being spent on relief works. An unusual demand for labour sprang up in and near Bombay city; and it was estimated that at least 150,000 (double the usual number) of the poorer workers moved to Bombay for part of the fair season, and returned with savings enough to last them till the next harvest.

The District is subdivided into 9 *tālukas*: VENGURLA, MĀLVAN, DEVGARH, RĀJĀPUR, RATNĀGIRI, SANGAMESHWAR, CHIPLŪN, KHED,

and Dāpoli. Chiplūn includes the petty subdivision (*petha*) of Guhāgar, and Dāpoli that of Mandangarh. The Collector usually has three Assistants, of whom one is a member of the Indian Civil Service.

Administration.

The District Judge, with whom are associated two Assistant Judges, sits at Ratnāgiri, and is assisted by ten Subordinate Judges, of whom two sit at Ratnāgiri, two at Chiplūn, and two at Rājāpur. The Khed *tāluka* alone has no Subordinate Judge. Original civil suits are heard by the Subordinate Judges, and appellate jurisdiction is exercised by the District Judge and his Assistants. There are 28 officers to administer criminal justice in the District. Crime is remarkably light; and such offences as occur are of a comparatively trifling nature and usually arise from disputes about land, which is very much subdivided and is eagerly sought after.

In 1819 the South Konkan was formed into a separate District, with Bānkot as its head-quarters, which in 1822 were removed to Ratnāgiri, as being a more central and convenient place. In 1830 the three *tālukas* north of Bānkot were transferred to the North Konkan, and Ratnāgiri reduced to the rank of a sub-collectorate. But in 1832 it was again made a District.

The land tenures of Ratnāgiri differ from those of the Presidency generally, in that there is a class of large landholders, called *khots*, in the position of middlemen between Government and the actual cultivators. The majority of the villages in the District are held on the *khoti* tenure, under which the *khot* makes himself responsible for the payment of the assessment. The *khot* is really a limited proprietor. He has the right to hold villages on payment in instalments of the lump assessment fixed by Government on all the village lands, the villages being liable to attachment if the amount is unpaid. He can lease lands in which there is no right of permanent occupancy on his own terms, and has a right to all lands lapsing by absence or failure of permanent occupants. The *khot's* tenants pay him such fixed amount, either in money or kind, as they may have agreed to pay; and in cases of default the *khot* receives assistance from Government in recovering such dues. Some of the *khoti* grants date back to the time of the Bijāpur kings, and were made to Muhammadans, Marāthās, and other Hindus alike. In 1829 the *khots* were well off, and many of them were men of capital, who laid out money in bringing new land under tillage. On the other hand, the tenants were deep in their debt, and wholly at their mercy; and the first efforts of Government were directed to ascertain the extent of the relative rights of the *khots* and their tenants. In 1851 it was found that the tenants were extremely impoverished, having no motive to improve their lands, and that a labour tax was exacted from them. It was

decided to make a survey, record the rights of occupancy tenants, and obtain information upon which legislation could be based. The terms of the settlement were embodied in the Survey Act of 1865. The District was settled under its provisions against the strenuous opposition of the *khots*; and as money rates had been substituted for payments in kind, the change was also disliked by the people. In 1874 the discontent was so pronounced that a Commission was appointed to reinvestigate the subject and to endeavour to effect a compromise. A new settlement was carried out between 1877 and 1880 by personal inquiries before the whole of the assembled villagers. All extra cesses were abolished, and the relations between *khot* and tenant were placed upon a satisfactory footing. The Khoti Act (Bombay) I of 1880 legalized the settlements. Besides the *khot* tenures, three other special tenures are found in the District: *sheri thikāns*, or crown lands now leased for a term of thirty years; *katuban* lands, with fixed rent not liable to fluctuation; *gairdasti* lands, or lands formerly waste and unassessed but now leased until the new settlement. Considerable areas on the coast and along the banks of the larger creeks have been granted on reclamation leases. The revision survey settlement has been introduced into five out of the nine *tālukas*, resulting in a decrease of nearly one per cent. in the revenue. The average rate per acre on 'dry' lands is Rs. 1-3 for *rabi* and 3 annas for *varkas*, on rice land Rs. 3-9, and on garden land Rs. 6-5.

Collections on account of land revenue and revenue from all sources have been, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	9,73	9,01	9,39	9,11
Total revenue . .	13,74	15,89	17,52	17,57

The District has four municipalities: namely, VENGURLA, RĀJĀPUR, RATNĀGIRI, and CHIPLŪN. Outside these, local affairs are managed by the District board and nine *tāluka* boards. The total income of these boards is about 1¼ lakhs, the chief source being the land cess. The expenditure includes Rs. 26,000 devoted to the construction and maintenance of roads and buildings.

The District Superintendent of police is assisted by two inspectors. There are 15 police stations, with a total of 687 police, including 12 chief constables, 137 head constables, and 538 constables. A special police officer resides at Ratnāgiri in charge of the ex-king Thībaw of Burma. The District Jail at Ratnāgiri has accommodation for 228 prisoners. In addition, there are 11 subsidiary jails in the District, with accommodation for 156 prisoners. The total number of prisoners in these jails in 1904 was 123, of whom 7 were females.

Ratnāgiri stands tenth among the twenty-four Districts of the Presidency in regard to the literacy of its population, of whom 5·2 per cent. (10·9 males and 0·3 females) could read and write in 1901. Education has made progress of late years. In 1855–6 there were only 20 schools attended by 2,403 pupils. The latter number rose to 9,585 in 1881, and to 20,937 in 1891, but fell to 19,733 in 1901. In 1903–4 there were in the District 484 schools attended by 22,855 pupils, of whom 1,536 were girls. Of 296 institutions classed as public, 2 are high schools, 13 middle schools, 278 primary schools, and 3 special schools, namely 2 technical schools at Dāpoli and Waknavli and the school of industry at Ratnāgiri. Of these institutions, one is maintained by Government, 168 are managed by District and 21 by municipal boards, 99 are aided and 7 unaided. The total expenditure on education in 1903–4 was 1·36 lakhs, of which Rs. 37,000 was met by fees, and Rs. 1,900 by Local funds. Of the total, 63 per cent. was devoted to primary schools.

The District contains one hospital, four dispensaries, one leper asylum, and five other private medical institutions, with accommodation for 148 in-patients. In 1904 the number of persons treated in these institutions was 36,500, of whom 483 were in-patients, and 1,104 operations were performed. The total expenditure was Rs. 17,000, of which Rs. 6,800 was met from Local and municipal funds. The District has a lunatic asylum with 111 inmates in 1904.

The number of persons successfully vaccinated in 1903–4 was 27,363, representing a proportion of 23 per 1,000 of population, which is slightly below the average for the Presidency.

[Sir J. M. Campbell, *Gazetteer of the Bombay Presidency*, vol. x (1880).]

Ratnāgiri Tāluka.—Central *tāluka* of Ratnāgiri District, Bombay, lying between 15° 44′ and 17° 17′ N. and 73° 12′ and 73° 33′ E., with an area of 415 square miles. It contains one town, RATNĀGIRI (population, 16,094), the District and *tāluka* head-quarters; and 147 villages. The population in 1901 was 147,182, compared with 136,840 in 1891. The increase is normal; but the density, 355 persons per square mile, largely exceeds the District average. The demand for land revenue in 1903–4 was Rs. 87,000, and for cesses Rs. 6,000. The coast-line is bold, and indented with numerous creeks. The climate is moist and relaxing, and the annual rainfall averages 96 inches. Alluvial deposits are found on the banks and at the estuaries of the creeks. The plateaux and hills consist entirely of laterite.

Ratnāgiri Town.—Head-quarters of Ratnāgiri District, Bombay, situated in 16° 59′ N. and 73° 18′ E., 136 miles south-by-east of Bombay city. Population (1901), 16,094. The town is open and faces the sea; the fort stands on a rock between two small bays, but these afford neither shelter nor good anchorage, as they are completely

exposed and have a rocky bottom. With any breeze from the west, a heavy surf breaks on the bar, and boats can enter only at high tide. The present town consists of four originally distinct villages. In 1822, on the transfer of the District head-quarters from Bānkot to Ratnāgiri, the villages were merged in the town. One object of interest connected with Ratnāgiri is the *tārli* or sardine fishery, which usually takes place in the months of January and February, when fleets of canoes may be seen engaged in this occupation. A single net-caster will fill his canoe in the course of a morning. The fishing-ground is just outside the breakers. The industry can be carried on only when the water is clear enough to admit of the fish being readily visible. The salt-water creek to the south of the fort is practicable only for country craft of under 20 tons burden. The value of the trade of the Ratnāgiri port in 1903–4 was returned at $23\frac{3}{4}$ lakhs; imports 17 lakhs, and exports $6\frac{3}{4}$ lakhs. The chief imports are salt, timber, catechu, and grain; the chief exports are fuel, fish, and bamboos.

In 1876 Ratnāgiri was constituted a municipality. The average income during the decade ending 1901 was Rs. 13,000. In 1903–4 the income was likewise Rs. 13,000, chiefly derived from a house tax and octroi. The streets and the landing-place are lighted; and a travellers' bungalow is kept up by the municipality. From a perennial stream $2\frac{1}{2}$ miles east of the town water has been conducted, and pipes are laid through all the chief quarters. Ratnāgiri contains 9 schools, including a high school, a middle school, and a school of industry with a daily attendance of 209 students, which was opened in 1879, and is supported by the District board. The lighthouse was erected in 1867. The elevation of the lantern above high water is 320 feet, and the height of the building, from base to vane, 35 feet. It exhibits a single red, fixed, dioptric light, of order 6, which is visible at 15 miles distance. Besides the chief revenue and judicial offices, the town contains a Subordinate Judge's court, a lunatic asylum, a civil hospital, and a leper asylum.

Ratnāgiri Hill.—Small hill in the Jājpur subdivision of Cuttack District, Bengal, situated in 20° 39′ N. and 86° 20′ E., on the north bank of the Keluo river. On the top is a modern temple of Mahākāla, near the gate of which are fine stone images 1 to $3\frac{1}{2}$ feet high, probably of Tantric origin. On the east several elaborately carved images have been dug up and erected. Farther east is a colossal sculpture, consisting of a male figure sitting on a lotus, below which are three rows of figures. Two enormous heads of Buddha, with thick lips and flat noses, have been dug out, and there can be little doubt that other images of great antiquarian interest are still lying buried. Local tradition ascribes these monuments to Vasukalpa Kesari, the king who is said to have built the monuments on Naltigiri hill.

Rato-Dero Tāluka.—*Tāluka* of Lārkāna District, Sind, Bombay, lying between 27° 37′ and 28° N. and 68° 4′ and 68° 33′ E., with an area of 325 square miles. The population in 1901 was 72,312, compared with 61,268 in 1891. The *tāluka* contains one town, RATO-DERO (population, 4,281), the head-quarters; and 80 villages. Excepting Lārkāna, this is the most thickly populated *tāluka* in the District, with a density of 222 persons per square mile. The land revenue and cesses in 1903–4 amounted to more than 2·9 lakhs. The *tāluka* is irrigated by the Sukkur, Nasrat, and Ghar Canals. The staple crop is rice. Like other well-irrigated *tālukas*, Rato-Dero is flat and has few distinctive features. It contains about 104 square miles of 'reserved' forest.

Rato-Dero Town.—Head-quarters of the *tāluka* of the same name in Lārkāna District, Sind, Bombay, situated in 27° 48′ N. and 68° 20′ E., 18 miles north-east by north of Lārkāna town. Population (1901), 4,281. Local trade is chiefly in grain. Rato-Dero was formerly the encampment of a chief of the Jalbāni tribe called Rato. The municipality, established in 1862, had an average income of Rs. 8,878 during the decade ending 1901. In 1903–4 the income was Rs. 14,000. The town contains a dispensary, a vernacular school attended by 118 pupils, and an Anglo-vernacular school attended by 34 pupils.

Rattihalli.—Village in the Kod *tāluka* of Dhārwār District, Bombay, situated in 14° 25′ N. and 75° 31′ E., about 10 miles south-east of Kod. Population (1901), 3,328. Till 1864 Rattihalli was the head-quarters of the *tāluka*. In 1764, in the war between Haidar Alī and the Marāthās, Rattihalli was the scene of a signal rout of Haidar's army. It contains a temple in Jakhanāchārya style, built of sculptured slabs, with three domes supported on thirty-six pillars. There are seven inscriptions varying in date from 1174 to 1550. There is also a ruined fort. The village contains two schools.

Rauza.—*Tāluk* and village in Aurangābād District, Hyderābād State. *See* KHULDĀBĀD.

Rāver Tāluka.—*Tāluka* of East Khāndesh District, Bombay, lying between 21° 3′ and 21° 24′ N. and 75° 46′ and 76° 10′ E., with an area of 481 square miles. It contains two towns, RĀVER (population, 7,870), the head-quarters, and SĀVDA (8,720); and 106 villages. The population in 1901 was 80,368, compared with 76,281 in 1891. The density, 67 persons per square mile, is a little less than half the average for the District. The demand for land revenue in 1903–4 was 2·1 lakhs, and for cesses Rs. 14,000. The soil near the hills is somewhat light, and in other parts it is a fine rich vegetable mould of varying depth. The chief water-supply is the Tāpti river. The climate is generally healthy. Rāver forms an unbroken well-wooded plain lying below the wall of the Sātpurās. The annual rainfall averages 24 inches.

Rāver Town.—Head-quarters of the *tāluka* of the same name in East Khāndesh District, Bombay, situated in 21° 15′ N. and 76° 2′ E. Population (1901), 7,870. A good road, 2 miles long and carefully bridged, connects the town with the north-eastern line of the Great Indian Peninsula Railway. Rāver has a local reputation for its manufactures of gold thread and articles of native apparel. In the main street, leading from the market-place to the fort, the houses are nearly all three-storeyed, and have richly carved wooden fronts. Rāver was ceded by the Nizām to the Peshwā in 1763, and by the latter bestowed on Holkar's family. The municipality, established in 1892, had an average income during the seven years ending 1901 of Rs. 1,700. In 1903–4 the income was Rs. 3,900. The town contains three cotton-gins and presses, and three boys' schools with 268 pupils.

Rāvi (the *Hydraotes* of Arrian, the *Parushni* of the Vedas, and the *Irāvati* of classical Sanskrit authors. The present name means 'sun').—One of the five rivers of the Punjab from which the Province derives its name. Rising in the Kulū subdivision of Kāngra District, it immediately passes into the Chamba State, after which it re-enters British territory on the borders of Gurdāspur District, opposite Basoli in the Jammu district of Kashmīr, forming the boundary of that State for 25 miles, with a general south-westerly course. It leaves the hills at Shāhpur, but still flows between high cliffs, while on the Jammu side the mountains rise from its very brink. At Mādhopur the head-works of the Bāri Doāb Canal draw off a large portion of its waters. Thenceforward the banks sink in height, and the river assumes the usual character of the Punjab streams, flowing in the centre of an alluvial valley, with high outer banks at some distance from its present bed. In 1870 it carried away the Tāli Sāhib shrine near Dera Nānak, a place of great sanctity with the Sikhs, and still threatens that town. The Rāvi next passes between Siālkot and Amritsar Districts, preserving its general south-westerly direction. The depth is here not more than a foot in March and April, swelling in June and September to 18 or 20 feet. Entering the District of Lahore, it runs within a mile of Lahore city, and throws out several branches which soon, however, rejoin the parent stream. A railway and foot-bridge spans the river a few miles north of Lahore, and the grand trunk road crosses it by a bridge of boats. After entering Montgomery District it receives its chief tributary, the Degh, on its north-western bank. The Degh rises in Jammu and flows through Siālkot and Lahore Districts, bringing with it large deposits of silt and affording great facilities for irrigation by wells. The Rāvi then passes into Multān District, where it is again bridged by the North-Western Railway near Sidhnai, and finally falls into the Chenāb in 30° 31′ N. and 71° 51′ E., after a total course of about 450 miles.

Throughout its course in the plains, the Rāvi flows everywhere in a comparatively narrow valley, often only a couple of miles in width, with generally a very tortuous channel. In one part, however, the river runs a perfectly straight course for 12 miles from Kuchlumba to Sarai Sidhu in Multān District, between high wooded banks, forming a beautiful reach called the Sidhnai, where the SIDHNAI Canal takes off. Few islands are formed, but the bed shifts occasionally from place to place. The floods of the Rāvi fertilize only a fringe of one or two miles on either side, and it is little employed for direct irrigation, although it supplies water to the Bāri Doāb and Sidhnai Canals. Navigation is difficult, but grain is shipped from Lahore in considerable quantities. *Deodār* timber, floated down in rafts from the Chamba forests during the rains, finds its way to Lahore only in seasons of heavy flood. In 1397 the Rāvi still flowed east and south of Multān and united with the Beās, as it did in the time of Chach (A.D. 800). The change of course northwards has been comparatively slight, and its date is uncertain. Even now, at times of high flood, the water finds its way to Multān by the old channel.

Rāwain (or Raingarh).—A petty State feudatory to the Jubbal State, Punjab, situated in 31° 7′ N. and 77° 48′ E., and comprising about 7 square miles of territory round the fort of Raingarh, which crowns an isolated hill on the left bank of the Pābar river, here crossed by a wooden bridge. Population (1901), 823. The Thākurs come from the same stock as the Jubbal family. The State was originally a fief of Tehrī, but the eastern portion was overrun by the Bashahrīs some time previous to the Gurkha invasion. After the Gurkha War the State was partitioned between the British, the Rājā of Garhwāl, and Rānā Rūna of Rāwain. The portion retained by the British was in 1830 given to Keonthal, in exchange for land taken up for the station of Simla. A small community of Brāhmans holds the surrounding valley, and has charge of two temples of Tibetan architecture. The elevation of the fort above sea-level is 5,408 feet. The revenue is about Rs. 3,000, of which Rs. 1,250 is derived from the forests, which are leased to Government. The present Thākur, Kedār Singh, succeeded in 1904. He has full powers, but sentences of death require confirmation by the Superintendent, Hill States, Simla.

Rāwalpindi Division.—North-western Division of the Punjab, lying between 31° 35′ and 34° 1′ N. and 70° 37′ and 74° 29′ E. The Commissioner's head-quarters are at Rāwalpindi and Murree. The total population of the Division increased from 2,520,508 in 1881 to 2,750,713 in 1891, and to 2,799,360 in 1901. Its total area is 15,736 square miles, and the density of the population is 178 persons per square mile, compared with 209 for the Province as a whole. In 1901 the Muhammadans numbered 2,428,767, or nearly 87 per cent. of the total;

while Hindus numbered 275,905, Sikhs 84,953, Jains 1,232, Pārsīs 66, and Christians 8,436. The Division contains five Districts, as shown below:—

District.	Area in square miles.	Population, 1901.	Land revenue and cesses, 1903-4, in thousands of rupees.
Gujrāt	2,051	750,548	10,52
Shāhpur	4,840	524,259	12,38
Jhelum	2,813	501,424	8,84
Rāwalpindi . . .	2,010	558,699	6,56
Attock	4,022	464,430	7,17
Total	15,736	2,799,360	45,47

The Districts of Rāwalpindi, Attock, and Jhelum are hilly, extending from the outer ranges of the Himālayas and including most of the Salt Range, which enters Shāhpur District on the south-west.

The principal town is RĀWALPINDI (population, 87,688, with cantonments). SHĀHDHERI, close to the Mārgalla pass, has been identified with the ancient city of Taxila. HASSAN ABDĀL, and MĀNIKIĀLA, the site of the body-offering *stūpa* of Buddhist legend, are within 30 miles of Shāhdheri. ROHTĀS and MALOT in Jhelum and Mong in Gujrāt District also possess an antiquarian interest. In Gujrāt District are the battle-fields of SADULLAPUR, CHILIĀNWĀLA, and GUJRĀT, while the famous defile of Narsingh-Phohār in the Salt Range, with its waterfall, is one of the most beautiful spots in Northern India.

Rāwalpindi District.—Northern District of the Rāwalpindi Division, Punjab, lying between 33° 4′ and 34° 1′ N. and 72° 34′ and 73° 39′ E., with an area of 2,010 square miles. It is bounded on the north by the Hazāra District of the North-West Frontier Province; on the east by the river Jhelum, which separates it from Kashmīr territory; on the south by the District of Jhelum; and on the west by that of Attock. The District as now constituted forms a compact square, with the mountain tract called the Murree Hills jutting from its north-east corner, between Kashmīr and Hazāra. This range extends southward along the eastern border of the District, forming the Kahūta Hills, which lie in the *tahsīl* of that name, as far south as Baghām on the Jhelum river, and west to within a few miles of Rāwalpindi cantonment. On the west the slope is gradual, but the eastern escarpments run sharply down to the deep gorges of the Jhelum. The five main spurs are known generally as the Murree range, that on which the sanitarium of Murree stands rising to 7,500 feet, Charihan being very little lower, and Paphundi reaching 7,000 feet at its highest point. These hills form an offshoot of the Himālayan system. The valleys between them are often ex-

Physical aspects.

tremely beautiful; and the higher ranges are covered with a varied growth, the silver fir, ilex, hill oak, blue pine, chestnut, and wild cherry uniting to form dense forests on the Murree and Paphundi spurs, while the lower hills are well wooded with olive, acacia, and bog myrtle. The view looking upwards from the plains is of exquisite beauty.

South-west of the Murree and Kahūta Hills stretches a rough high-lying plateau, about 1,800 feet above sea-level. The northern part of this includes the *tahsīl* of Rāwalpindi and the Kallar circle of the Kahūta *tahsīl*. It is drained by the Sohān, which flows south-west, passing a few miles south of Rāwalpindi cantonment, below which it is joined by several tributaries from the hills. The southern part of the plain, forming the Gūjar Khān *tahsīl*, is drained by the Kānshi, a stream which flows southward from the low hills south of Kahūta till near the town of Gūjar Khān, and then winds eastwards to the Jhelum. The whole of this plateau is highly cultivated, the fields being massively embanked to retain moisture, while its numerous villages shelter a dense population. The Jhelum river, which forms the eastern boundary of the District, flows here between precipitous cliffs, which render it useless for irrigation; and it is only navigable below Dunga Gali, a point 40 miles east of Rāwalpindi town.

The District lies entirely on Tertiary rocks. The oldest of these are the Murree beds, which run in a narrow band across its northern part. They are composed of red and purple clays, with grey and purplish sandstones, and are probably of miocene age. These are succeeded to the south by a great spread of Lower Siwālik sandstone, which covers the greater part of the District and contains a rich mammalian fauna of pliocene age. It is overlain by the Upper Siwālik conglomerates and sandstones, which occur to the south-west of Rāwalpindi, and at other localities. Still farther south the Lower Siwālik sandstone is continuous with the similar beds of the Salt Range [1].

The vegetation of the higher portions of the Murree subdivision is that of the temperate Himālaya, with a few Kashmīr and Oriental species intermingled. At lower levels it is similar to that of the Outer Himālaya, from the Indus valley to Kumaun; but trans-Indus types, e.g. *Delphinium*, *Dianthus*, *Scabiosa*, and *Boucerosia*, are frequent, and extend for some distance into the extra-Himālayan part of the District, whose flora is that of the Western Punjab, but on the whole rather scanty. Trees are mostly planted, and Indo-Malayan species, such as the mango, &c., thrive rather poorly.

Leopards are found in the Murree and Kahūta Hills, and very rarely the *gural*. The District is a poor one for sport.

The climate of Rāwalpindi is considerably cooler than that of the

[1] Wynne, 'Tertiary Zone and Underlying Rocks in N.-W. Punjab,' *Records, Geological Survey of India*, vol. x, pt. iii.

Punjab plains. The hot season lasts only three months, from June to August; and the nearness of the hills lowers the temperature during the succeeding months, even when there is no rain in the plains. The cold in winter is very severe, and a trying east wind prevails in January and February. The District on the whole is extremely healthy for Europeans, while the natives are robust and of fine physique.

The rainfall in the plains is fairly copious, varying from 29 inches at Gūjar Khān to 41 at Kahūta; in the hills the average is 53 inches. Heavy winter rain from January to March is characteristic of this District, 8 inches or more frequently falling in the three months.

History.

In ancient times the whole or the greater part of the country between the Indus and the Jhelum seems to have belonged to a Turanian race called Takkas or Takshakas, who gave their name to the city of Takshasilā, the Taxila of the Greek historians, the site of which has been identified with the ruins of Shāhdheri in the north-west corner of the District. At the time of Alexander's invasion Taxila is described by Arrian as a flourishing city, the greatest indeed between the Indus and the Hydaspes; Strabo adds that the neighbouring country was crowded with inhabitants and very fertile; and Pliny speaks of it as a famous city situated in a district called Amanda. The invasion of Demetrius in 195 B.C. brought the Punjab under the Graeco-Bactrian kings. Later they were superseded by the Sakas, who ruled at Taxila with the title of Satrap. At the time of Hiuen Tsiang the country was a dependency of Kashmīr.

Mahmūd of Ghazni passed through the District after his defeat of Anand Pāl and capture of Ohind. With this conqueror claim to have come the Gakhars, a tribe still of importance in the District. The first mention of them in the Muhammadan historians occurs in the memoirs of Bābar, who gives an interesting account of the capture of their capital of Parālah. It was strongly situated in the hills, and was defended with great bravery by its chief Hāti Khān, who escaped from one gate as the Mughal army marched in at the other. Hāti Khān died by poison in 1525; and his cousin and murderer Sultān Sārang submitted to Bābar, who conferred on him the Potwār country. Thenceforth the Gakhar chieftains remained firm allies of the Mughal dynasty, and were able to render efficient aid in its struggle with the house of Sher Shāh. Salīm Shāh attempted in vain to subdue their country; but in 1553 Adam Khān, Sārang's successor, surrendered the rebel prince Kāmrān to Humāyūn. Adam Khān was subsequently deposed by Akbar, and his principality made over to his nephew Kamāl Khān. During the flourishing period of the Mughal empire, the family of Sārang retained its territorial possessions, its last and greatest independent chief, Mukarrab Khān, ruling over a kingdom which extended from the Chenāb to the Indus.

In 1765, during the total paralysis of the Mughal government, Sardār Gūjar Singh Bhangī, a powerful Sikh chieftain, marched from Lahore against Mukarrab Khān, whom he defeated outside the walls of Gujrāt. Mukarrab Khān retired across the Jhelum, where he was soon treacherously murdered by his own tribesmen; but the traitors forthwith quarrelled over their spoil, and fell one by one before Sardār Gūjar Singh. The Sikhs ruled Rāwalpindi with their usual rapacity, exacting as revenue the last coin that could be wrung from the proprietors, who were often glad to admit their tenants as joint-sharers, in order to lighten the incidence of the revenue. Gūjar Singh held the District throughout his life, and left it on his death to his son, Sāhib Singh, who fell in 1810 before the power of the great Ranjīt Singh. Another Sikh Sardār, Milka Singh, fixed upon Rāwalpindi, then an insignificant village, for his head-quarters. In spite of Afghān inroads and the resistance of the Gakhars, he soon conquered on his own account a tract of country round Rāwalpindi worth 3 lakhs a year. On his death in 1804, his estates were confirmed to his son, Jīwan Singh, by Ranjīt Singh, until 1814, when, upon Jīwan Singh's death, they were annexed to the territory of Lahore. The Murree and other hills long retained their independence under their Gakhar chieftains; but in 1830 they were reduced after a bloody struggle, and handed over to Gulāb Singh of Jammu, under whose merciless rule the population was almost decimated, and the country reduced to a desert.

In 1849 Rāwalpindi passed with the rest of the Sikh dominions under British rule; and though tranquillity was disturbed by an insurrection four years later, led by a Gakhar chief with the object of placing a pretended son of Ranjīt Singh on the throne, its administration was generally peaceful until the outbreak of the Mutiny in 1857. The Dhūnds and other tribes of the Murree Hills, incited by Hindustāni agents, rose in insurrection, and the authorities received information from a faithful native of a projected attack upon the station of Murree in time to concert measures for defence. The ladies, who were present in large numbers, were placed in safety; the Europeans and police were drawn up in a cordon round the station; and when the enemy arrived expecting no resistance, they met with a hot reception, which caused them to withdraw in disorder, and shortly after to disband. In 1904 the *tahsīls* of Attock, Fatahjang, and Pindi Gheb were transferred from Rāwalpindi to the newly constituted Attock District.

The principal remains of antiquity are described in the articles on MĀNIKIĀLA and SHĀHDHERI. The country round the latter place abounds in Buddhist remains, the most interesting of which is the Balar *stūpa*.

The population of the District at the last three enumerations was:

(1881) 471,079, (1891) 533,740, and (1901) 558,699, dwelling in two towns and 1,180 villages. It increased by 4·7 per cent. during the last decade. The District is divided into four *tahsīls*, Rāwalpindi, Kahūta, Murree, and Gūjar Khān, the head-quarters of each being at the place from which it is named. The towns are the municipalities of Rāwalpindi, the administrative head-quarters of the District, and Murree, the summer station.

Population.

The following table shows the chief statistics of population in 1901:—

Tahsīl.	Area in square miles.	Number of		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Rāwalpindi	764	1	448	261,101	341·7	+ 7·4	24,924
Murree	258	1	120	52,303	202·7	+ 14·3	1,463
Kahūta	456	...	231	94,729	207·9	+ 2·6	3,119
Gūjar Khān	568	...	381	150,566	265·1	− 1·2	6,513
District total	2,010	2	1,180	558,699	278·0	+ 4·7	36,019

Note.—The figures for the areas of *tahsīls* are taken from revenue returns. The total District area is that given in the *Census Report*.

Muhammadans number 466,918, or more than 83 per cent. of the total; Hindus, 57,325; and Sikhs, 26,363.

The most numerous tribe is that of the land-owning Rājputs, who number 101,000, or 18 per cent. of the total population. Next come the Awāns with 39,000; after them the Jats, Gūjars, and Dhūnds, with 35,000, 26,000, and 23,000 respectively. Other important agricultural castes are the Sattis (17,000), Maliārs (17,000), Gakhars (13,000), Mughals (13,000), Janjūas (8,000), and Pathāns (7,000). Saiyids and Kureshis number 13,000 and 9,000 respectively. The Khattrīs (30,000) and Arorās (6,000) are the only commercial castes. Brāhmans number 15,000, including 1,000 Muhiāls; Shaikhs, partly agriculturists and partly traders, 12,000. Of the artisan classes, the Julāhās (weavers, 23,000), Tarkhāns (carpenters, 17,000), Mochīs (shoemakers and leather-workers, 13,000), Kumhārs (potters, 10,000), Lohārs (blacksmiths, 8,000), and Telis (oil-pressers, 8,000) are the most important; and of the menials, the Chūhrās and Musallis (sweepers and scavengers, 14,000) and Nais (barbers, 7,000). Kashmīris number 18,000. Of the total population, 64 per cent. are dependent on agriculture. Many of the leading tribes, Gakhars, Janjūas, and Rājputs, enlist in the Indian army. Sattis, Dhaniāls, Brāhmans, and Khattrīs are also enlisted, and many of them have been distinguished for their courage and loyalty.

The American United Presbyterian Mission was established at Rāwalpindi in 1856. It has a church in the town, and maintains

an Arts college, a large high school with two branches, and three girls' schools. There are Roman Catholic missions at Rāwalpindi and Murree, and at Yūsufpur, close to Rāwalpindi cantonment. Native Christians numbered 511 in 1901.

Agriculture.

More than 98 per cent. of the cultivation depends entirely on the rainfall. In the hills the rain is abundant, and the cultivation, which is carried on in terraced fields along the hill-sides, is classed as secure from famine; three-quarters of the crops are grown in the autumn harvest. The rest of the District is an undulating plateau, much cut up by ravines. The soil is usually a light-brown fertile loam, the fields are carefully embanked, and the tillage is generally good. The rainfall is sufficient; and the regularity and abundance of the winter rains protect the District from a grain famine in the worst years, while the proximity of the hills mitigates a fodder famine. The spring crop is the principal harvest.

The District is chiefly held by small peasant proprietors. The following table shows the main statistics of cultivation in 1903-4, areas being in square miles:—

Tahsīl.	Total.	Cultivated.	Irrigated.	Cultivable waste.	Forests.
Rāwalpindi	764	380	7	37	67
Murree	258	62	3	16	157
Kahūta	456	151	1	21	179
Gūjar Khān	568	346	1	39	9
Total	2,046*	939	12	113	412

* These figures, which do not agree with the area as shown on p. 266, are taken from later returns.

The chief crops of the spring harvest are wheat and barley, the areas under which in 1903-4 were 325 and 18 square miles, while in the autumn harvest *jowār*, *bājra*, and pulses covered 33, 180, and 50 square miles respectively.

The area cultivated has increased by 9 per cent. since the settlement of 1880-7. The people exercise considerable care in the selection of seed for wheat and maize. Loans from Government for sinking wells are rarely taken, as the country is not adapted for wells.

The cattle are small and not good milkers, and attempts to improve the breed by the introduction of Hissār bulls were not successful. The cattle of the hills are small, but hardy. A fine breed of camels is kept; they are not adapted for riding, but make excellent pack animals. Horse-breeding is popular, and many good animals are reared; a good deal of mule-breeding is also carried on. The Army Remount department maintains 26 horse and 91 donkey stallions, and the District board 8 pony and 5 donkey stallions. A large horse fair is held yearly at

Rāwalpindi town. Large flocks of sheep and goats of inferior breeds are kept in the Murree and Kahūta Hills.

There is very little irrigation. Of the total area cultivated in 1903-4, only 12 square miles, or about 1 per cent., were classed as irrigated. Of this area, 2,946 acres were irrigated from wells and 4,870 acres from tanks and streams. In addition, 3,512 acres were subject to inundation from various streams, and the canal irrigation is entirely from private channels taking off from them. Only 1,103 masonry wells were in use, all worked with Persian wheels by cattle; but there were over 543 lever wells, unbricked wells, and water-lifts.

The forests are of some importance, comprising 152 square miles of 'reserved,' 76 of 'protected,' and 249 of 'unclassed' forests under the Forest department, besides 21 square miles of military reserve, and about one square mile under the Deputy-Commissioner. The most important are the hill forests of Murree and Kahūta. The others are forests only in name, consisting merely of scrub or grass. In 1904-5 the revenue from the forests under the Forest department was Rs. 45,000, and from those under the Deputy-Commissioner Rs. 900.

The District produces no minerals of commercial importance. Lignite is occasionally met with in the Murree Hills, and petroleum is found in small quantities near Rāwalpindi town. Gypsum occurs in considerable quantities. A little gold is washed from the beds of various streams.

Trade and communications.

The District possesses no important indigenous manufactures; but cotton is woven everywhere, and the silk embroidered *phūlkāris* of Rāwalpindi are of some merit. Lacquered legs for bedsteads and other pieces of native furniture are made locally, and there is some output of saddles and shoes. The principal factories are the North-Western Railway locomotive and carriage works, where the number of employés in 1904 was 1,455; and the arsenal, which in the same year gave employment to 569 persons. Besides these, there are the Rāwalpindi gas-works with 170 employés, 2 breweries with 391, a tent factory with 252, an iron foundry with 123, and four smaller factories with an aggregate of 150 employés. With the exception of the Murree Brewery, all of these are situated at Rāwalpindi town.

Trade consists chiefly in the supply of necessaries to the stations of Rāwalpindi and Murree, and the through traffic with Kashmīr. The District exports food-grains and oilseeds, and imports piece-goods, rice, hardware, tea, and salt. A good deal of timber comes from Kashmīr. Rāwalpindi town and Gūjar Khān are the chief centres of trade.

The District is traversed by the main line of the North-Western Railway, with a branch from Golra junction to Khushālgarh. The metalled

roads are the grand trunk road, which runs by the side of the main line of rail, and the Kashmīr road and the Khushālgarh road from Rāwalpindi town. These are maintained from Provincial funds. A service of tongas runs between Rāwalpindi and Murree, but a railway connecting the two places is projected. The unmetalled roads, which are all under the District board, are not fit for wheeled traffic, the place of which is taken by pack animals.

Although the District has from time to time suffered from scarcity, it has not, at any rate since annexation, been visited by serious famine, and the hill *tahsīls* may be considered as quite secure.

Administration.

The District is divided into four *tahsīls*, RĀWALPINDI, GŪJAR KHĀN, MURREE, and KAHŪTA, each under a *tahsīldār* and a *naib-tahsīldār*. The Deputy-Commissioner is aided by five Assistant or Extra-Assistant Commissioners, one of whom is in charge of the District treasury. During the hot season an Assistant Commissioner holds charge of the Murree subdivision, which consists of the Murree *tahsīl*.

Civil judicial work is disposed of by a District Judge subordinate to the Divisional Judge of the Rāwalpindi civil division, one Subordinate Judge, and two Munsifs, of whom one sits at head-quarters and the other at Gūjar Khān. There are two Cantonment Magistrates in the Rāwalpindi cantonment and several honorary magistrates in the District. Civil litigation presents no special features. The predominant forms of crime are burglary and theft, though murders are also frequent; but serious crime is rare in the hill *tahsīls*, and the Muhammadan peasants of the Rāwalpindi and Gūjar Khān *tahsīls* are industrious and peaceable.

For a long period prior to 1770 the greater part of the District was subject to the Gakhars. They realized their revenue by appraisement of the standing crop at each harvest, current prices being taken into account, and the demand (which was generally moderate) being levied in grain or cash by mutual agreement. No revenue was realized from the hill tracts. From 1770 to 1830 the Sikhs pursued their usual policy of exacting all they could, until Ranjīt Singh ordered a moderate assessment to be made. Ten years of good government under Bhai Dūl Singh were followed by six of oppression.

[1] After annexation the hill tracts were summarily assessed, and the demand of Mahārājā Gulāb Singh of Jammu (who had been revenue assignee under the Sikhs) was reduced by one-third. In the plains, however, John Nicholson imposed an enhanced demand, based on the estimates of the oppressive Sikh officials, with disastrous results. When the first summary settlement of the whole District was made

[1] The figures in the paragraphs on land revenue include the *tahsīls* of Pindi Gheb, Attock, and Fatahjang throughout.

in 1851, the people were heavily in debt and clamouring for relief. Large reductions were allowed in the demand, and the assessment worked well until the first regular settlement was effected in 1860. This resulted in a further reduction of 5½ per cent., and a more equal distribution of the demand over the villages. The settlement proved satisfactory, and was allowed to run on for twenty years instead of the ten for which it had been sanctioned. A revised settlement, completed in 1885, was based on an all-round increase of 50 per cent. in cultivation. The new demand was 9¾ lakhs, an increase on the regular assessment of 34 per cent., and it has been realized with ease. During the sixteen years ending 1901 only 8 per cent. of one year's demand was remitted. In the same period cultivation increased 8 per cent., while prices of staple crops rose 64 per cent. The District again came under settlement in 1902, and the anticipated increase in the demand is 1·1 lakhs, or 13 per cent. The average assessment on 'dry' land is 10 annas (maximum R. 1, minimum 4 annas), and on 'wet' land Rs. 3-0-1 (maximum Rs. 5, minimum Rs. 1-0-2). The demand on account of land revenue and cesses in 1903-4 for the District as now constituted was 6·6 lakhs. The average size of a proprietary holding is 9 acres.

The collections of land revenue alone and of total revenue for the old District are shown in the following table, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue	6,97	8,58	8,27	9,82
Total revenue	10,28	12,65	16,76	20,04

The District contains two municipalities, RĀWALPINDI and MURREE. Outside these, local affairs are managed by the District board, whose income, mainly derived from a local rate, amounted in 1903-4 to 1·2 lakhs[1]. The expenditure in the same year was 1·1 lakhs[1], the principal item being education.

The regular police force consists of 820 of all ranks, including 154 cantonment and 160 municipal police, and 10 mounted constables. The Superintendent usually has one Assistant and 7 inspectors under him. The village watchmen number 664. There are 13 police stations, with 10 road-posts in Rāwalpindi town. The District jail at head-quarters has accommodation for 902 prisoners.

The District stands second among the twenty-eight Districts of the Province in respect of the literacy of its population. In 1901 the proportion of literate persons was 6·9 per cent. (11 males and 1·2 females). The number of pupils under instruction was 5,359 in

[1] These include the figures for the three *tahsīls* of Attock, Fatahjang, and Pindi Gheb, since transferred to Attock District.

1880–1, 7,603 in 1890–1, and 17,957[1] in 1903–4. In 1904–5 the number of pupils in the District as now constituted was 12,227. Education in Rāwalpindi is making great strides. Five new high schools have been opened since 1881, and two Anglo-vernacular middle schools, besides an Arts college maintained by the American Mission. The great advance made in female education is largely due to the exertions of the late Bābā Sir Khem Singh Bedi, K.C.I.E., who opened a number of schools for girls and undertook their management. In 1904–5 the total expenditure on education in the District as now constituted amounted to 1·1 lakhs, of which District funds contributed Rs. 18,000 and municipal funds Rs. 14,000. Fees realized Rs. 31,000, and the Provincial Government made grants amounting to Rs. 18,000.

Besides the Rāwalpindi civil hospital and two city branch dispensaries, the District possesses three outlying dispensaries. At these institutions during 1904 a total of 120,456 out-patients and 1,606 in-patients were treated, and 5,405 operations were performed. The expenditure was Rs. 21,000, of which municipal funds provided Rs. 16,000. The Lady Roberts Home for invalid officers is situated at Murree.

The number of successful vaccinations in 1903–4 was 12,546, representing 22·4 per 1,000 of the population. The Vaccination Act is in force in Rāwalpindi and Murree towns.

[F. A. Robertson, *District Gazetteer* (1895); *Settlement Report* (1893); and *Customary Law of the Rāwalpindi District* (1887).]

Rāwalpindi Tahsīl.—North-western *tahsīl* of Rāwalpindi District, Punjab, lying between 33° 19′ and 33° 50′ N. and 72° 34′ and 73° 23′ E., with an area of 764 square miles. The population in 1901 was 261,101, compared with 243,141 in 1891. The *tahsīl* contains the town and cantonment of RĀWALPINDI (population, 87,688), the head-quarters; and 448 villages. The land revenue and cesses in 1903–4 amounted to 2·6 lakhs. MĀNIKIĀLA and SHĀHDHERI are places of great archaeological interest. The Sohān river, which crosses the *tahsīl* from east to west, divides it into two distinct portions. To the north lie the rich plains round Rāwalpindi town, sloping up to the outlying spurs of the Himālayas, which form the northern boundary of the *tahsīl*. To the south the country is cut up by torrent beds and ravines into little plateaux, which vary in soil and character, but resemble each other in difficulty of access.

Rāwalpindi Town.—Head-quarters of the Division, District, and *tahsīl* of Rāwalpindi, Punjab, situated in 33° 36′ N. and 73° 7′ E., on the North-Western Railway and the grand trunk road, on the north

[1] These include the figures for the three *tahsīls* of Attock, Fatahjang, and Pindi Gheb, since transferred to Attock District.

bank of the Leh river, a muddy, sluggish stream, flowing between precipitous banks, and separating the town from the cantonment; distant by rail 1,443 miles from Calcutta, 1,479 from Bombay, and 908 from Karāchi. The population, including cantonments, at the last three enumerations was: (1881) 52,975, (1891) 73,795, and (1901) 87,688, including 40,807 Muhammadans, 33,227 Hindus, 6,302 Sikhs, 6,278 Christians, and 1,008 Jains. The present town is of quite modern origin; but Sir Alexander Cunningham identified certain ruins on the site of the cantonment with the ancient city of Gājipur or Gajnipur, the capital of the Bhatti tribe in the ages preceding the Christian era. Graeco-Bactrian coins, together with ancient bricks, occur over an area of 2 square miles. Known within historical times as Fatehpur Baori, Rāwalpindi fell into decay during one of the Mongol invasions in the fourteenth century. Jhanda Khān, a Gakhar chief, restored the town and gave it its present name. Sardār Milka Singh, a Sikh adventurer, occupied it in 1765, and invited traders from the neighbouring commercial centres of Jhelum and Shāhpur to settle in his territory. Early in the nineteenth century Rāwalpindi became for a time the refuge of Shāh Shujā, the exiled king of Kābul, and of his brother Shāh Zamān. The present native infantry lines mark the site of a battle fought by the Gakhars under their famous chief Sultān Mukarrab Khān in the middle of the eighteenth century. It was at Rāwalpindi that, on March 14, 1849, the Sikh army under Chattar Singh and Sher Singh finally laid down their arms after the battle of Gujrāt. On the introduction of British rule, Rāwalpindi became the site of a cantonment, and shortly afterwards the head-quarters of a Division; while its connexion with the main railway system by the extension of the North-Western Railway to Peshāwar immensely developed both its size and commercial importance. The municipality was created in 1867. The income and expenditure during the ten years ending 1902–3 averaged 2·1 lakhs. In 1903–4 the income and expenditure were 1·8 lakhs and 2·1 lakhs respectively. The chief item of income was octroi (1·6 lakhs); and the expenditure included administration (Rs. 35,000), conservancy (Rs. 27,000), hospitals and dispensaries (Rs. 25,000), public works (Rs. 9,000), and public safety (Rs. 17,000). The cantonment, with a population in 1901 of 40,611, is the most important in India. It contains one battery of horse and one of field artillery, one mountain battery, one company of garrison artillery, and one ammunition column of field artillery; one regiment of British and one of Native cavalry; two of British and two of Native infantry; and two companies of sappers and miners, with a balloon section. It is the winter head-quarters of the Northern Command, and of the Rāwalpindi military division. An arsenal was established here in 1883. The income and expenditure from cantonment funds

during the ten years ending 1902–3 averaged Rs. 96,000 and Rs. 93,000 respectively. The chief educational institutions are the Government normal school, the Gordon Arts college maintained by the American United Presbyterian Mission, and five aided Anglo-vernacular high schools. The cantonment also contains an English and several Anglo-vernacular middle schools, and an English convent school for girls. The town has a civil hospital, with two branch dispensaries. Rāwalpindi has a large carrying trade with Kashmīr. The principal factories are the North-Western Railway locomotive and carriage works, where the number of employés in 1904 was 1,455; and the arsenal, which in the same year gave employment to 569 persons. Besides these, the Rāwalpindi gas-works had 170 employés; a branch of the Murree Brewery, 200; a tent factory, 252; an iron foundry, 123; and four smaller factories an aggregate of 150 employés. The horse fair held by the District board in April is one of the largest in the Punjab. There are branches of the Alliance Bank of Simla and of the Commercial Bank of India in the cantonment.

Raya.—South-eastern *tahsīl* of Siālkot District, Punjab, lying on the north bank of the Rāvi between 31° 43′ and 32° 13′ N. and 74° 22′ and 75° 1′ E., with an area of 485 square miles. The Degh in its course through the western portion of the *tahsīl* deposits a fertile silt. In the north-east also the land is rich. In the south the soil is saline, but abundant crops of rice are grown in good years. The population in 1901 was 192,440, compared with 214,671 in 1891. It contains the town of NĀROWĀL (population, 4,422) and 456 villages, including Raya, the head-quarters. The land revenue and cesses in 1903–4 amounted to Rs. 3,77,000.

Rāyachoti Tāluk.—Central *tāluk* of Cuddapah District, Madras, lying between 13° 50′ and 14° 20′ N. and 78° 25′ and 79° 10′ E., with an area of 998 square miles. It is flanked on the east by the Pālkonda Hills, which separate this tract from the lower country. The population in 1901 was 113,912, compared with 113,236 in 1891; and the density was 114 persons per square mile, compared with the District average of 148. It contains one town, RĀYACHOTI (population, 7,123), the head-quarters; and 89 villages. The demand for land revenue and cesses in 1903–4 amounted to Rs. 1,63,000. Like the other upland *tāluks*, Rāyachoti contains a large number of tanks, but few are of any size. In the floods of November, 1903, over one hundred of them were breached. The principal products are rice and *cambu*, the latter being the staple food-grain. The soils vary considerably, but the red varieties predominate. There is no black cotton soil. The most fertile portion is to the south-east in the neighbourhood of Tsundupalle, where there are a large number of tanks and some channels from the Punchu and Bāhudā rivers. There are four rivers in the *tāluk*—

the Pāpaghni, which flows through a small part of the western portion, the Māndavi, the Bāhudā, and the Chitleru. All of them are affluents of the Cheyyeru, and none is perennial or of any size. The Pāpaghni runs in a rocky channel with a very rapid stream. The Māndavi, on the banks of which the town of Rāyachoti is situated, usually consists of a narrow stream of water trickling through a wide sandy bed.

Rāyachoti Town (*Rājā-vīdu*, 'the abode of the Rājā').—Head-quarters of the *tāluk* of the same name in Cuddapah District, Madras, situated in 14° 4′ N. and 78° 46′ E. Population (1901), 7,123. It stands on the banks of the Māndavi river, and seven roads converge on it. It has some trade and a weekly market. An old temple here is dedicated to Vīrabhadraswāmi, and a large number of people (about 6,000) attend the annual car-festival. Two odd superstitions are connected with the feasts at this shrine. Early in the morning of the day of the car-procession a big ruby of the size of a nutmeg is placed between the two eyebrows of the god to represent the third eye of Siva. Opposite to the idol a large heap of boiled rice is placed so as to catch the first glance of the ruby eye. Till this is done, the doors are shut, and the people are prevented from going in front of the idol, lest they should be instantly killed by the rays from the third eye. The person who conducts the ceremony stands behind the idol, out of the range of the eye, and stops there till the rite is over. At another time of the year the god is taken out hunting. He is carried to a small open building supported by stone pillars half a mile outside the town, and there placed on the ground. Beneath the flooring of this building are a large number of scorpions. While the god is taking his rest therein, the attendants, it is said, can catch these scorpions and hold them in their hands without being stung, but directly he leaves it the creatures resume their old propensities.

Rāyadrug Tāluk.—South-eastern *tāluk* of Bellary District, Madras, lying between 14° 28′ and 15° 4′ N. and 76° 47′ and 77° 21′ E., with an area of 628 square miles. The population in 1901 was 82,789, compared with 78,625 in 1891. The demand for land revenue and cesses in 1903–4 amounted to Rs. 1,86,000. It contains only one town, RĀYADRUG (population, 10,488), the head-quarters; and 71 villages. The *tāluk* contains a far smaller proportion of black cotton soil than the other three eastern *tāluks* of Adoni, Alūr, and Bellary. Twenty-seven per cent., mainly consisting of land in the basin of the Hagari, is cotton soil; while about a fifth is red land, and more than one-half is covered with the light mixed soils. The Hagari and its tributary the Chinna Hagari drain practically the whole area. Rāyadrug has the smallest population of any *tāluk* in the District, and its people are the worst educated. More than half of them speak Telugu, and two-fifths Kanarese. It contains a large number of wells, and

the spring channels which are annually dug from the Hagari are only second in importance to those from the Tungabhadra. They are cleared every year by the joint labour of the villagers who profit by them; and the provisions of section 6 of Act I of 1858, under which any person neglecting or refusing to contribute his share of the customary labour is liable to pay twice the value of that labour, are rigorously enforced. Most of the land supplied by these channels is cultivated with rice, and the area under this crop is far higher than that in any other *tāluk*. But much of the land is very infertile, the area under horse-gram (the characteristic crop of poor soils) is high, and one-fifth of the cultivable area is waste. *Korra* is the staple food-crop, and not *cholam* as elsewhere in the District. A considerable quantity of *cambu* is also raised.

Rāyadrug Town.—Head-quarters of the *tāluk* of the same name in Bellary District, Madras, situated in 14° 42′ N. and 76° 51′ E. Population (1901), 10,488. Rāyadrug means 'king's hill-fortress,' and the place is so named from the stronghold on the rocky hill at the foot of which it is built. The hill consists of two parts, one considerably higher than the other, connected by a low saddle. The citadel is on the higher peak, 2,727 feet above the sea; but the enclosing walls of the fortress surround both the heights and the saddle between them, and run, it is said, for a distance of 5 miles round the hill. Though the gates are in ruins, the lines of walls which remain show what a formidable stronghold it must have been in days gone by. On the saddle, and even higher up the rock, are a number of houses which are still occupied, and the cultivation of vegetables from the water in the many tanks on the hill is a thriving industry.

The place is said to have been originally a stronghold of some Bedars, whose disorderly conduct compelled the Vijayanagar kings to send an officer, named Bhūpati Rāya, to reduce them to submission. He turned them out of the place and ruled it himself, and the hill was called after him Bhūpati-Rāyanikonda, or more shortly Rāyadrug. Later it fell into the hands of the chief of Kundurpi Drug in Anantapur District; and his family built the greater part of the fortifications on the hill, and raised the place to the important position it held in the petty wars of the Deccan. The height of its power was reached in the middle of the eighteenth century. Haidar Alī was friendly to the chief, but his son and successor Tipū treacherously seized the place and confined its owner at Seringapatam. When Tipū was killed in 1799 a member of the chief's family took possession of the fort, but he attempted to excite disturbances and was almost immediately deported to Hyderābād by the Nizām's officers. When Bellary District was ceded to the Company in 1800, he was transferred to Gooty, where he resided on a maintenance allowance as a quasi-state prisoner till his

death. Pensions were granted to the members of his family, which several of their descendants continue to draw.

On the hill on which the fort stands are several temples, some ruins of the former chiefs' residences, a Jain temple, and some curious Jain figures carved upon the face of the rocks in a place known as Rasā Siddha's hermitage. Rasā Siddha, says local tradition, was a sage who lived in the days when a king named Rājārājendra ruled over Rāyadrug. This king had two wives. The elder of these bore a son, who was named Sārangadhara and grew into a very beautiful youth. The younger wife fell in love with him. He rejected her advances, and she took the time-honoured revenge of telling her husband that he had attempted her virtue. The king ordered that his son should be taken to the rock called Sabbal Banda, two miles north of Rāyadrug, and there have his hands and feet cut off. The order was obeyed. That night Rasā Siddha found the prince lying there and, knowing by his powers of second sight that he was innocent, applied magic herbs which made his hands and feet to grow again. The prince presented himself to his father, who saw from the portent that he must be innocent and punished the wicked wife. The hermitage is now occupied by an ascetic from Northern India, and on Sundays Hindus of all classes, and even Musalmāns, go up the hill to break coco-nuts there. It consists of three cells with cut-stone doorways built among a pile of enormous boulders, picturesquely situated among fine trees. On four of the boulders are carved the Jain figures referred to.

Rāyadrug town contains two or three broad and regular streets, and many narrow and irregular lanes. Its industries include a tannery, the weaving of silk fabrics, and the manufacture of *borugulu*, or rice soaked in salt water and then fried on sand until it swells. Trade is conducted largely with Bellary, but also with Kalyandrug and with the neighbouring villages in Mysore. Now that the railway to Bellary has been completed, that town's share of the commerce will doubtless increase rapidly.

Rāyagada.—*Tahsīl* in the Agency tracts of Vizagapatam, Madras, lying in the north-east of the District. It is very hilly, but the hills have for the most part been denuded of their forests. The Nāgāvali or Lāngulya river traverses the whole length of it, and most of the cultivation (chiefly rice) is in this valley. The area is 710 square miles; and the population in 1901 was 86,610 persons, chiefly Khonds and other hill tribes, living in 758 villages. The head-quarters are at Rāyagada.

Rāyakottai ('king's fort').—Village in the Krishnagiri *tāluk* of Salem District, Madras, situated in 12° 31′ N. and 78° 2′ E. Population (1901), 1,497. To the north stands the hill with its ruined fort which gives the place its name. This commands one of the most

important passes between the Mysore table-land and the Bāramahāl, and was of great strategical importance in the Mysore Wars of the eighteenth century. Its capture by Major Gowdie was the first exploit in Lord Cornwallis's march. It was ceded to the British by the treaty of 1792, and under its walls the army of General Harris encamped in 1799 before entering Mysore territory on its way to Seringapatam. The place was at one time a favourite residence of military pensioners.

Rāyan.—Estate and chief town thereof in Jodhpur State, Rājputāna. *See* RIAN.

Rāybāg.—Head-quarters of the petty division of the same name in Kolhāpur State, Bombay, situated in 16° 30′ N. and 74° 52′ E., on the Southern Mahratta Railway, 24 miles south-east of Shirol. Population (1901), 3,804. In the eleventh century it is said to have been the chief town of a Jain chiefship. According to a local story, the town was formerly so wealthy that on one market day the maid of a rich merchant bid Rs. 5,000 for a gourd. By this offer she outbid the servant of Randullah Khān, the local Bijāpur governor. The servant in anger told her master that all the best things in the market went to the merchants. The governor, thinking that the town had grown over-wealthy, ordered it to be plundered, a misfortune from which it has never recovered. Most of the inhabitants are Jains and Marāthās, and the town is surrounded by a mud wall. On every Monday a market is held, where grain and coarse cloth are offered for sale. Rāybāg contains three temples, a mosque, and the domed tomb of Randullah Khān, which has recently been repaired. The Someshwar temple is old, and built of huge well-sculptured blocks of stone. The Sidheshwar temple, which is built of black stone, was repaired in 1875 by the *ināmdārs* or proprietors of the Rāybāg petty division. The Narsingha temple is an underground structure of black stone. The image of Narsingha is richly carved, and is said to have been brought from the Kistna near Jalālpur.

Razam.—Town in the Pālkonda *tāluk* of Vizagapatam District, Madras, situated in 18° 27′ N. and 83° 41′ E., about 14 miles from Pālkonda, in the middle of an open plain covered with scrub jungle. Population (1901), 5,096.

Rāzampeta.—Head-quarters of the Pullampet *tāluk* of Cuddapah District, Madras, situated in 14° 12′ N. and 79° 10′ E. Population (1901), 15,287. It is a station on the Madras Railway, but otherwise it is of little interest.

Rechna Doāb.—A *doāb* or 'tract between two rivers' (the Rāvi and Chenāb) in the Punjab, lying between 30° 35′ and 32° 50′ N. and 71° 50′ and 75° 3′ E., comprising Siālkot, Gujrānwāla, and Lyallpur Districts, and parts of Gurdāspur, Lahore, Montgomery, Jhang, and Multān. The name was formed by the Mughal emperor Akbar, by combining the first syllables of the names of the two rivers.

Regan.—Petty State in Rewā Kāntha, Bombay.

Rehlī.—Southern *tahsīl* of Saugor District, Central Provinces, lying between 23° 9′ and 23° 54′ N. and 78° 36′ and 79° 22′ E., with an area of 1,299 square miles in 1901. The population decreased from 171,090 in 1891 to 138,030 in 1901. In 1902, 11 villages and 30 square miles of Government forest were transferred to Narsinghpur District, and the revised totals of area and population are 1,254 square miles and 136,463 persons. The density is 109 persons per square mile, or below the District average. The *tahsīl* contains two towns, Garhākotā (population, 8,508) and Deorī (4,980); and 660 inhabited villages. The head-quarters of the *tahsīl* are at Rehlī, a village of 3,665 inhabitants, situated at the junction of the Sonār and Dehār rivers, 26 miles from Saugor by road. Excluding 327 square miles of Government forest, 69 per cent. of the available area is occupied for cultivation. The cultivated area in 1903–4 was 443 square miles. The demand for land revenue in the same year was Rs. 1,71,000, and for cesses Rs. 18,000. The *tahsīl* contains some fertile plain country round Garhākotā and Deorī, with stretches of poor hilly land on the western and southern borders.

Rehrākhol.—Native State in Bengal. *See* Rairākhol.

Remuna.—Village in the head-quarters subdivision of Balasore District, Bengal, situated in 21° 33′ N. and 86° 53′ E., about 5 miles west of Balasore town. Population (1901), 1,430. It is celebrated for the temple of the god Kshīrchorā Gopīnāth, a form of Krishna, in honour of whom a religious fair is held annually in February. The fair lasts for thirteen days and is attended by a very large number of pilgrims. Toys, sweetmeats, fruits, vegetables, country cloth, and other articles are sold. The temple of the god is an unsightly stone edifice, disfigured by indecent sculptures.

Reni.—Head-quarters of the *nizāmat* and *tahsīl* of the same name in the State of Bīkaner, Rājputāna, situated in 28° 41′ N. and 75° 3′ E., about 120 miles north-east of Bīkaner city. Population (1901), 5,745. The town is walled, and possesses a handsome Jain temple built in 942 so solidly that the masonry is almost as strong now as when new, a fort constructed in the time of Mahārājā Sūrat Singh (1788–1828), a post office, a vernacular school attended by 72 boys, a jail with accommodation for 86 prisoners, and a hospital with beds for 7 in-patients. Raw hides and *chhāgals* (leathern water-bags), manufactured at Reni, are exported in great numbers. The *nizāmat* consists of the five eastern *tahsīls* of Bhādra, Churu, Nohar, Rājgarh, and Reni; and the total population in 1901 was 175,113, nearly 90 per cent. being Hindus.

Reotī.—Town in the Bānsdīh *tahsīl* of Balliā District, United Provinces, situated in 25° 51′ N. and 84° 24′ E., on the Bengal and North-Western Railway. Population (1901), 8,631. Reotī is the head-quarters

of the Nikumbh Rājputs, but these have lost most of their property, and the town presents a dirty and overcrowded appearance. It is administered under Act XX of 1856, with an income of Rs. 1,000. Coarse cotton cloth, shoes, and palanquins are manufactured, but there is little trade besides. The school has 50 pupils.

Repalle.—Former name of a *tāluk* in Guntūr District, Madras, which is now called TENĀLI.

Revadanda.—Port in the Alībāg *tāluka* of Kolāba District, Bombay, situated 6 miles south-by-east of Alībāg town, in 18° 33′ N. and 72° 57′ E. *See* CHAUL.

Revelganj (or Godnā).—Town in the head-quarters subdivision of Sāran District, Bengal, situated in 25° 47′ N. and 84° 39′ E., on the left bank of the Gogra river. Population (1901), 9,765. The town is named after Mr. Revell, who was Collector of Government Customs in 1788. It was formerly a very important trade centre, but the railway has robbed it of much of its business. Revelganj was constituted a municipality in 1876. The income and expenditure during the decade ending 1901–2 averaged Rs. 9,000 each. In 1903–4 the income was Rs. 11,000, derived mainly from tolls and a tax on houses and lands; and the expenditure was Rs. 8,000.

Rewah State (*Rīwa*).—A treaty State in the Baghelkhand Agency, Central India, lying between 22° 38′ and 25° 12′ N. and 80° 32′ and 82° 51′ E., with an area of about 13,000 square miles. It is bounded on the north by the Bānda, Allahābād, and Mirzāpur Districts of the United Provinces; on the east by Mirzāpur District and the Tributary States of Chota Nāgpur; on the south by the Central Provinces; and on the west by the States of Maihar, Nāgod, Sohāwal, and Kothī, in Baghelkhand. The State falls into two natural divisions, which are separated by the scarp of the Kaimur range. North of the range, surrounding the chief town, lies a wide elevated alluvial plain, with an area of 3,778 square miles; to the south the country is traversed by a succession of parallel ridges enclosing deep valleys, the whole being covered with dense forest. The plateau ends on both the north and south in an abrupt scarp, and the scenery near the hilly tract is very fine. Over the northern scarp the Tons falls in a series of magnificent cascades. Near Govindgarh on the southern boundary a similar effect on a smaller scale is produced by streams which precipitate themselves into the valley of the Son river.

Physical aspects.

The KAĪMURS and their eastern spur, known locally as the Khainjua, the arm of the Pannā range (*see* VINDHYA) called locally the Binjh Pahār, which curves eastwards from Bundelkhand and forms the northern boundary of the State, and the MAIKALA HILLS on which the sacred AMARKANTAK stands in the south-east, constitute the hill system

of this region. The watershed is formed by the Kaimurs, from which all streams flow respectively north or south to join the TONS and SON, these two great rivers with their tributaries constituting the drainage of the State.

The geology of Rewah is unusually interesting. The type areas of several important series lie within its limits, the Rewahs, Kaimurs, Bandairs (Bhānders), and Sirbū shales deriving their designations from local names. The elevated plain on which the chief town stands consists of rocks of the lower Bandair series overlaid with alluvium, while on some of the highest hill-tops a covering of laterite still appears, showing that the great Deccan trap flow once extended as far east as this region. The jungle-covered tract lying south of the Kaimur range consists of hills of Vindhyan sandstone superimposed on gneiss. The Bijāwars here exhibit a varied series of slates, sandstones, iron ores, and basic lavas, and in the south abut on the Gondwāna rocks, well-known for their coal-bearing property, while at the very southern limit of the State the cretaceous Lametas and trap appear, the latter reaching as far as Amarkantak.

Almost every formation met with in the State yields products of value. The gneiss contains corundum, while mica and galena also occur in this formation. The Bijāwars contain rich iron ores, valuable limestones, some of which would make highly ornamental marbles, and bright-red banded jaspers similar to those which are found near Gwalior and employed by the stone-workers of Agra. The Lametas contain ceramic clays of excellent quality. The UMARIĀ coal-mines in the Gondwānas are a source of considerable income to the State, while the Vindhyan sandstones yield building materials of unsurpassed excellence.

The prevalent tree in the Rewah forests is the *sāl* (*Shorea robusta*), others being the *sāj* (*Terminalia tomentosa*), *tendū* (*Diospyros tomentosa*), and *khair* (*Acacia Catechu*). The brushwood consists mainly of the species *Grewia*, *Zizyphus*, *Casearia*, *Antidesma*, *Woodfordia*, *Flueggea*, *Phyllanthus*, *Boswellia*, and *Buchanania*, with occasional trees of *mahuā* (*Bassia latifolia*).

The Rewah jungles are well-known for their tigers, while leopards, bears, *sāmbar* (*Cervis unicolor*), antelope, and *chinkāra* (*Gazella bennetti*), and other species common to Peninsular India abound. All the ordinary wild-fowl are met with.

The climate is generally healthy, but subject to extremes of heat and cold. The annual rainfall averages 41 inches. Great variations are, however, apparent in different parts of the State, the Raghurājnagar *tahsīl* having an average of 45 inches, while in the Sohāgpur *tahsīl* it rises to 52.

The chiefs of Rewah are Baghel Rājputs descended from the Solanki

clan which ruled over Gujarāt from the tenth to the thirteenth century. Vyāghra Deo, brother of the ruler of Gujarāt, is said to have made his way into Northern India about the middle of the thirteenth century and obtained the fort of Marpha, 18 miles north-east of Kālinjar. His son, Karan Deo, married a Kalachuri (Haihaya) princess of Mandlā and received in dowry the fort of Bāndhogarh, which until its destruction by Akbar in 1597 was the capital of the Baghel possessions. The Rewah family, however, have singularly few historical records; and such histories as have been lately composed confuse persons and dates in a way that makes them absolutely unreliable, so that were it not for the detailed records of the Muhammadan historians it would be difficult to give any connected account.

History.

In 1298 Karan Deo, the last Baghel ruler of Gujarāt, was driven from his country by Ulugh Khān, acting under the orders of the emperor Alā-ud-dīn. This disaster seems to have caused a considerable migration of Baghels to Bāndhogarh. Until the fifteenth century the Baghels were engaged in extending their possessions, and were not of sufficient political importance to attract the attention of the Delhi kings. In 1488 the Baghel Rājā of Pannā[1] assisted Husain Shāh of Jaunpur when pursued by Bahlol Lodī. In 1494 Sikandar Lodī advanced against Rājā Bhaira or Bhīra of Pannā, who had captured Mubārak Khān, governor of Jaunpur. The Rājā was defeated and died during his retreat, while Sikandar proceeded as far as Paphund, 20 miles north of the capital town of Bāndhogarh. In 1498–9 Sikandar attacked Bhīra's son and successor, Sālivāhan, for refusing to grant him a daughter in marriage. An attempt to take the fort of Bāndhogarh failed, and Sikandar was obliged to content himself with laying waste the country up to Bāndā. Sālivāhan was succeeded by Bīr Singh Deo, the founder of Bīrsinghpur, now in Pannā State, and was followed by his son Bīrbhān, who had lived for some time at Sikandar's court. The next chief was Rām Chandra (1555–92), the contemporary of Akbar, who is constantly mentioned by Muhammadan historians. Hearing of the extraordinary skill of Rām Chandra's musician, Tān Sen, Akbar summoned him to Delhi. Tān Sen's songs are still sung, and his name is revered throughout India as that of a singer who has never been equalled. Rām Chandra persistently refused to attend the Delhi court, till at length in 1584, at the suggestion of his own son Bīrbhadra, then at Delhi, Rājā Bīrbal and a noble, Zain Khān Koka, fetched the old chief, who was received with all honour by Akbar. Rām Chandra died in 1592 and was succeeded by Bīrbhadra, who, however, fell from his palanquin while travelling to Bāndhogarh and died in the following year. Bīrbhadra's sudden death and the accession of a minor named Vikramāditya gave rise to disturbances in

[1] 'Pannā' is here probably a copyist's mistake for 'Bhatti.'

Bāndhogarh. Akbar intervened and captured and dismantled the fort in 1597, after a siege of eight months and a few days. Anūp Singh (1640–60) was driven from Rewah by Pahār Singh Bundelā of Orchhā. In 1658, however, he went to Delhi and made his submission; and the fort of Bāndhu and its dependent territory were restored to him. Anirudh Singh (1690–1700) was killed by the Sengar Thākurs of Mauganj, leaving an infant son Avdhūt Singh (1700–55). The State at this time was invaded by Hirde Sah of Pannā, who occupied Rewah, the chief being forced to fly to Partābgarh in Oudh.

In 1803, after the Treaty of Bassein, overtures for an alliance were made to the Rewah chief, who, however, rejected them. In 1812, during the time of Rājā Jai Singh (1809–35), a body of Pindāris raided Mirzapur from Rewah territory. The chief was believed to have either abetted or at least countenanced the raid, and was accordingly called upon to accede to a treaty, in which he acknowledged the protection of the British Government, and agreed to refer all disputes with neighbouring chiefs to their arbitration, and to allow British troops to march through or be cantoned in his territories. The last condition was not, however, fulfilled, and a fresh treaty was entered into in 1813. Jai Singh was a scholar, and the author of several works, as well as a great patron of literary men. In 1854 Mahārājā Raghurāj Singh succeeded to the *gaddi*. On the outbreak of the Mutiny in 1857, he offered troops for the assistance of the British Government, and 2,000 men were sent to keep peace in the neighbouring tracts. Kunwar Singh, leader of the rebels from Dināpur, attempted to march through the country; but Lieutenant Osborne, the Political Agent, supported by the country people, beat them off, and also repulsed an attack by the mutineers from Nāgod and Jubbulpore, after which Colonel Hinde, commanding the Rewah Contingent, took the offensive and cleared the Deccan road of rebels. For his good services, the Sohāgpur and Amarkantak *parganas*, which had been seized by the Marāthās in the beginning of the century, were restored to Raghurāj Singh. He died in 1880, and was succeeded by the present chief, Mahārājā Venkat Raman Singh, born in 1876. He was created a G.C.S.I. in 1897, in recognition of his successful conduct of famine relief operations. The ruler of the State bears the titles of His Highness and Mahārājā, and receives a salute of 17 guns.

The country possessed by the Rewah chief is covered with old remains, almost every village having in it or near it some signs of former habitation; but these have not yet been fully examined. Mādhogarh, Rāmpur, Kundalpur, Amarpatan, Majholi, and Kakonsiha may be especially noted. At Kevati Kund the Mahānadī river drops down a sheer fall of 331 feet, forming a deep pool which is held to be very sacred; near it is an inscription in characters of about 200 B.C. Gūrgi

Masaun, 12 miles east of Rewah town, is strewn with remains showing that it was formerly a place of great importance, and it has been suggested as the site of the ancient city of Kausāmbhī. A fine fort here, called Rehuta, which is attributed to Karna Deo Chedi (1040–70), has a circuit of 2½ miles, with walls 11 feet thick and originally 20 feet high, surrounded by a moat 50 feet broad and 5 feet deep. The temples are mostly Brāhmanical, though some Digambara Jain figures are lying near. At Baijnath are the remains of five or six temples. One of them is dedicated to Siva as Vaidyanāth, and the sanctuary door of this is magnificently carved. Chandrehī, a mile east from the bank of the Son, was once a very large place and contains a fine temple and an old monastery. The temple is peculiar in being constructed on a circular plan, and is assigned to the thirteenth or fourteenth century. The monastery also belongs to about the same period, and is interesting as an example of domestic architecture. It is built in the form of a square, with a pillared courtyard inside and chambers round it. The ceilings of the rooms are elegantly ornamented. At Mārā, the Murī of the maps, are three groups of caves called the Buradan, Chhewar, and Rāvan. They date from the fourth to the ninth century, and some of them are ornamented with rough sculptures.

Population.

The population at the last three enumerations was: (1881) 1,305,124, (1891) 1,508,943, and (1901) 1,327,385. The decrease of 14 per cent. during the last decade is chiefly due to the famines of 1897 and 1899. The density of population is 102 persons per square mile; but the two natural divisions show a marked variation, the density in the northern section rising to 176 per square mile, while in the hilly tract it is only 72.

The State contains four towns, REWAH (population, 24,608), SATNĀ (7,471), UMARIĀ (5,381), and GOVINDGARH (5,022); and 5,565 villages.

The following table gives the chief statistics of population and land revenue:—

Tahsīl.	Area in square miles.	Number of		Population, 1901.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.	Land revenue of *khālsa*, 1902–3, in thousands of rupees.
		Towns.	Villages.					
Teonthar	816	...	505	105,154	129	− 41	1,641	3,29
Huzūr	1,201	2	975	316,139	263	− 11	10,447	2,86
Mauganj	784	...	609	99,534	127	− 31	1,831	2,12
Bardī	2,912	...	848	198,921	68	− 16	6,969	1,63
Rāmnagar	2,775	...	949	221,980	80	+ 7	1,910	86
Sohāgpur	3,535	1	1,192	241,345	68	− 20	9,109	27
Raghurājnagar	977	1	487	144,312	148	− 10	4,039	2,51
State total	13,000	4	5,565	1,327,385	102	− 12	35,946	13,54

Hindus number 1,013,350, or 76 per cent. of the total; Animists, 280,502, or 21 per cent.; and Musalmāns, 32,918, or 2 per cent. The Animists are proportionately most numerous in the hilly tract, though the Gonds ordinarily return themselves as Hindus. The question of female infanticide was raised in Rewah in 1893, when a great deficiency of girls was found to exist among the Karchulī (Kalachuri), Parihār, and Somvansi Rājputs. Measures were introduced for the surveillance of certain villages, but the census returns of 1901 gave no indication of any prevalence of the practice.

The chief Hindu castes are Brāhmans (228,000, or 17 per cent.), Kunbīs (79,000), Chamārs (78,000), and Telis (36,000). The Telis were in early days the holders of much of the country, Teli chiefs ruling in Northern Baghelkhand up to the fifteenth century. Of the jungle tribes, the most important are the Kols (136,500) and Gonds (127,300). Brāhmans and Rājputs or Thākurs are the principal landholders, Ahīrs and Kunbīs being the chief cultivators. The prevailing language is Baghelkhandī, spoken by 94 per cent. of the population. About 64 per cent. of the inhabitants are supported by agriculture, and 8 per cent. by general labour.

There are no Christian missions in Rewah, and in 1901 only 61 Christians were recorded in the State, of whom 21 were on the staff of the colliery at Umariā.

Agriculture.

The soil falls into two natural divisions, agreeing with the lie of the country. On the section north of the Kaimurs, with its deep alluvial covering, the soil is fertile and bears excellent crops, while in the hilly tract cultivation is productive only in the valleys, where detritus has collected. Land is classified locally by crop-bearing qualities, natural formation, and proximity to villages. The best class is called *mār*, a form of black soil, especially adapted to wheat and other spring crops; *sigon* is a lighter yellow-coloured soil, growing rice especially; *dumat* is a mixture of the two former; and *bhatta* is a stony soil of low productive power.

The principal crops are rice, *sāmān*, maize, *kākun*, *bājra*, and *kodon* in the autumn; and wheat, gram, and barley in the spring, with subsidiary crops of *til* and linseed. In the low-level tract of the Teonthar *tahsīl* poppy is cultivated to some extent.

The main agricultural statistics for 1902–3 are given in the table on the next page, in square miles.

The area is thus distributed: cultivated, 2,803 square miles, or 22 per cent.; uncultivated but cultivable, 1,290 square miles, or 10 per cent.; forest, 4,632 square miles, or 35 per cent. The rest is uncultivable waste. Of the cropped area, rice occupies 600 square miles, or 21 per cent., and wheat 290 square miles, or 10 per cent. The staple food-grains eaten by the poorer classes are *kodon* and *sāmān*

in the rains, and *jowār* and gram at other times. The rich eat rice and wheat. A new class of wheat has lately been introduced, known as *muda* or *safed* ('white') wheat, but it is considered of inferior quality to the ordinary or *kathia* wheat. Advances of grain and cash are not made in ordinary years, but are freely given in times of scarcity.

Tahsīl.	Total area.	Cultivated.	Irrigated (acres).	Cultivable waste.	Forests.
Teonthar	816	308	236	183	200
Huzūr	1,201	703	1,040	167	127
Mauganj	784	256	67	198	183
Bardī	2,912	487	78	189	1,296
Rāmnagar	2,775	367	155	73	1,191
Sohāgpur	3,535	273	183	302	1,474
Raghurājnagar	977	409	208	178	161
Total	13,000	2,803	1,967	1,290	4,632

Water is plentiful and the country is full of large tanks and reservoirs, but these are not as a rule used for irrigation purposes; the only system of 'wet' cultivation is from small embankments of earth raised at the lower end of sloping fields, so as to retain water for some time after the monsoon has ceased. In land thus moistened seed is sown in October, producing a yield three or four times as great as that obtained from the same area of equally good 'dry' soil. The method is simple and well suited to the needs of local agriculture. Ordinary well-irrigation is little practised, being confined to the cultivation of *pān*, poppy, sugar-cane, and garden produce. Pasturage is ample, but no special breeds of cattle are raised.

Formerly the revenue was paid in kind called *bhāg* ('share'). This system has been entirely replaced by cash payments in lands directly under the State; but the holders of alienated land, which comprises about 72 per cent. of the total area, still adhere to the old practice. Wages are paid in kind for agricultural operations, but in cash for other work. Blacksmiths, carpenters, and masons get 4 to 8 annas a day. The staple food-grains, rice, wheat, *jowār*, and *kodon*, sold in 1904 at 11, 13, 17, and 14 seers per rupee respectively.

Forests.

The forests are very extensive and of considerable commercial value. They cover an area of 4,632 square miles, the most important lying south of the Kaimur range. The greater part of the forest consists of *sāl* (*Shorea robusta*), *tendū* (*Diospyros tomentosa*), *dhawa* (*Anogeissus latifolia*), and species of *Terminalia*, with much bamboo. In the upland area stunted teak, *babūl* (*Acacia arabica*), and *khair* (*Acacia Catechu*) prevail. *Dahya* (shifting) cultivation was formerly very common, and is still to some extent practised by jungle tribes. Trees are felled and burnt, and the seed sown in the ashes. This practice is highly destructive to forests, and

is discouraged in consequence. Till 1875 no proper supervision was exercised over the forests, but between that date and 1902 systematic management has been introduced and some areas are now regularly 'reserved' and protected. The cutting of certain trees is prohibited; of these the principal are the *mahuā* (*Bassia latifolia*), *achār* (*Buchanania latifolia*), *kusam* (*Schleichera trijuga*), *harra* (*Terminalia Chebula*), *khair* (*Acacia Catechu*), *chhiula* (*Bassia butyracea*), *sāg* or teak (*Tectona grandis*), and *shīsham* (*Dalbergia Sissoo*). Grazing is allowed only within village limits. Lac, *rāl* (resin of *Shorea robusta*), and other jungle products are leased out to contractors yearly, the first being an important commercial item. Forest work is done by Gonds, Kols, and other jungle tribes. The forest income amounts to 4·1 lakhs a year, and the expenditure to a lakh.

Minerals.

Rewah is rich in mineral products. The most paying is coal from Umariā, of which 193,277 tons, worth 7·5 lakhs, were extracted in 1903. Limestone is quarried by a European firm near Satnā, a royalty of 4 annas per cubic foot being paid, which in 1903 yielded Rs. 1,640. A little corundum is also extracted.

Trade and communications.

In respect of arts and manufactures Rewah is very backward. Agriculture affords a ready and easy means of livelihood, while the fact that the greater part of the State is covered with jungle has always made communication for trade purposes difficult. There are no arts or industries of any importance.

Grain and wood are the chief exports, large numbers of railway sleepers being exported from the stations between Umariā and Pendra Road.

The chief means of communication are the Jubbulpore extension of the East Indian Railway and the Katnī-Bilāspur section of the Bengal-Nāgpur Railway. The Jubbulpore-Mirzāpur, or great Deccan road, from which an unmetalled branch goes to Allahābād, and the Nowgong-Chhatarpur-Pannā-Satnā road are the chief highways; but since the opening of railways the former has been little used.

In 1864 the State introduced a post carried by runners. In 1884 an arrangement was made with the British Post Office department to open offices in the State. There are now twenty-one British post offices, and three telegraph offices, at Rewah, Satnā, and Umariā, besides those at railway stations.

Famine.

Since the beginning of the nineteenth century the State has suffered from three famines. The first was in 1831, when no proper system of relief was instituted, and the people suffered so severely that on the fall of any kind of calamity it is now usual to recall it. In 1868 occurred another famine, which is still

recollected. The next came in 1897, when for the first time systematic relief was afforded to the people, 18 lakhs being spent. In 1899 the southern districts were again attacked by famine, though not severely.

Administration.

Up to the nineteenth century the administration of the State, though it lay nominally with the chief, was almost entirely in the hands of the Kāyasth community, then practically the only educated persons connected with the government. A *dīwān* or minister had nominal superior control, but all reports, accounts, and administrative work passed through the hands of the Kāyasth *khāskalams* or writers. The districts were in charge of *kārindas* (managers), who, however, were again dependent on their district *khāskalam* for all information. The district *khāskalam* prepared abstracts of the reports he received from the village officials, which were again abstracted by the chief *khāskalam* at head-quarters and submitted to the *dīwān*. The system naturally gave immense opening for peculation to the permanent Kāyasth staff.

For administrative purposes the State is now divided into seven *tahsīls*, four lying north of the Kaimur range—the Huzūr, Raghurājnagar (Satnā), Teonthar, and Mauganj; and three south—Bardī, Rāmnagar, and Sohāgpur. Each *tahsīl* is in charge of a *tahsīldār*, who is the revenue collector and magistrate of his charge, and is assisted by a staff consisting of a *thānadār* (police inspector), a forest officer, a hospital assistant, and a district schoolmaster. Villages are as a rule let to farmers who are responsible for the revenue, receiving a commission of 5 to 10 per cent. on the gross rental.

The chief of Rewah has first-class powers, including that of life and death over his subjects, and is the final authority of appeal in all matters. He is assisted by two commissioners, one for revenue matters and one for judicial. The departments of administration are the revenue and general executive, judicial, customs and excise, police, public works, medical (which is supervised by the Agency Surgeon at Satnā), education, and forests. The courts of the State are modelled on those in British India, the British codes being followed in the criminal and civil courts with necessary adaptations to suit local usage.

Land falls into two classes: *kothār*, or land directly owned by the State; and *pawaiya*, or land alienated in *jāgīrs* and other grants. The latter class comprises 72 per cent. of the total area. The principal forms of grant are *muāmla*, a maintenance grant made to members of the chief's family and *sardārs*, under which the land is not transferable, but full revenue rights lie with the holder; *paipakhar* ('washing of feet'), a form of religious grant made to Brāhmans, in which a certain percentage of the revenue is at times taken from the holders; *jāgīrs*, or service grants, under which the holder maintains a certain

quota of men and horses; and *vritya*, rent or tribute-free grant. A revenue survey was made in 1879.

The land revenue and total revenue of the State for a series of years are shown below, in thousands of rupees:—

	Average for ten years 1880-90.	Average for ten years 1890-1900.	1900-1.	1902-3.
Land revenue .	6,70	7,87	9,13	13,54
Total revenue .	11,46	14,13	22,73	29,08

Of the total revenue in 1902-3, the Umariā Colliery contributed 7 lakhs, forests 4·1 lakhs, customs 2·5 lakhs, and excise Rs. 78,000; while Rs. 82,000 was paid by holders of alienated land, whose aggregate normal income from land revenue and other sources amounted to 20 lakhs. The chief heads of expenditure were: chief's establishment, 3·7 lakhs; army, 4·3 lakhs; public works, 3 lakhs; collection of land revenue, 1·4 lakhs; forests, 1 lakh; and colliery, 3·7 lakhs.

Silver has never been coined; but early in the nineteenth century a copper coin known as the *Bagga shāhi* was struck in Rewah, of which 56 went to one British rupee.

The State forces consist of 1,140 infantry and 574 cavalry, with 13 guns. A regular police force of 622 men is maintained, village watch and ward being performed by men of the Kotwār caste, who receive a small land grant and grain dues at each harvest. The Central jail is at Rewah, and the manufacture of cotton cloth and ice has been started in it.

The Rewah chiefs have long been noted as scholars and supporters of Hindī and Sanskrit learning. In 1869 Sir Dinkar Rao, the famous minister of Gwalior, who for a short time assisted in the administration of the State, attempted, but without success, to start an English-teaching school. During the minority of the present chief many schools were opened. Of the total population, 2·7 per cent. (4·6 males and 0·8 females) could read and write in 1901. The State now contains two high schools, affiliated to the Allahābād University, and 51 village schools, as well as two girls' schools, with a total of 2,740 pupils. The expenditure on education is Rs. 27,000 a year.

There are 17 hospitals, costing Rs. 49,000 a year. In 1903-4 the number of persons successfully vaccinated was 33,580, representing 25 per 1,000 of the population.

Rewāh Town.—Capital of the State of the same name in Central India, and head-quarters of the Huzūr *tahsīl*, situated in 24° 32′ N. and 81° 18′ E., 31 miles by metalled road from Satnā on the East Indian Railway; 1,045 feet above the sea. Population (1901), 24,608, of whom 19,274, or 78 per cent., were Hindus, and 5,097 Musalmāns.

Rewah was already a place of importance in 1554, when it was held by Jalāl Khān, son of the emperor Sher Shāh. It became the chief town after the capture of Bāndhogarh, the old capital, by Akbar in 1597; and Rājā Vikramāditya, who, according to some accounts, founded the place in 1618, probably added palaces and other buildings. About 1731 Rewah was sacked by Hirde Sāh of Pannā, Rājā Avdhūt Singh flying to Partābgarh in Oudh.

The old city is still enclosed by a wall 20 feet high. On the east side it is entered through the Jhula Darwāza ('swing gate'), a finely carved gateway taken from the old town of Gūrgi Masaun, of which the remains lie 12 miles east of the capital. In 1882 a large part of the modern town was destroyed by a flood. Between the old walled town and the modern extension lies a deep ravine, crossed by a causeway at a point known as the Bundelā Gate, from a gate that formerly stood there, erected by the Bundelās after their capture of the city. The chief buildings are the palace of Vishvanāth Singh, the Kothī or new palace erected in 1883, and the State offices. The town also contains a school with a boarding-house attached, a State printing press, a jail, a combined post and telegraph office, and a small *dāk*-bungalow.

A garden known as the Lakshman Bāgh contains several modern Vaishnavite temples erected by the chiefs, which are supervised by the Swāmi or high priest of the State, the spiritual director of the Rewah chief. Three generations back the chief of Rewah became an ardent supporter of Vaishnavism. An income of Rs. 40,000 a year is attached to the post, and the Swāmi has great influence in temporal as well as spiritual matters.

Rewā Kāntha ('the banks of the Rewā or Narbadā').—A Political Agency subordinate to the Government of Bombay, established in 1821–6, having under its control 61 separate States, lying between 21° 23′ and 23° 33′ N. and 73° 3′ and 74° 20′ E., with a total area of 4,972 square miles. Besides lands stretching about 50 miles along the south bank of the Narbadā, Rewā Kāntha includes an irregular band of territory from 10 to 50 miles broad, passing north of the Narbadā to about 12 miles beyond the Mahī, and an isolated strip on the west lying chiefly along the left bank of the Mahī. It is bounded on the north by the Rājputāna States of Dungarpur and Bānswāra; on the east by the *tāluka* of Dohād in the Pānch Mahāls District, Alī Rājpur, and other petty States of the Bhopāwar Agency, and part of Khāndesh District; on the south by Baroda territory and Surat District; and on the west by Broach District, Baroda State, the Pānch Mahāls, Kaira, and Ahmadābād Districts. Extreme length from north to south about 140 miles, breadth from east to west varying from 10 to 50 miles.

General Statistics of each State in the Rewā Kāntha Agency

State.	Caste, tribe, or race of the ruling chief.	Area in square miles.	Number of villages.	Population (1901).	Revenue (1903-4). From land.	Revenue (1903-4). Total.	Tribute. Amount.	Tribute. To whom payable.
First-class State.					Rs.	Rs.	Rs.	
Rājpīpla	Rājput	1,517½	927	117,175	5,37,485	8,76,014	50,001	Gaikwār.
Second-class States.								
Chota Udaipur	Rājput	873	546	64,621	1,00,678	2,15,391	7,806	Gaikwār.
Bāriya	"	813	495	81,579	67,833	2,13,375	—	—
Lūnāvāda	"	388	348	63,967	1,11,932	1,78,701	{ 5,001 9,231	} Gaikwār & British.
Bālāsinor	Musalmān	189	102	32,618	64,447	99,543	{ 3,078 9,766	} " "
Sunth	Rājput	394	291	39,956	62,725	1,09,207	5,384	British.
Petty States.								
Kadāna	Rājput	130	106	9,550	13,430	18,683	—	—
Bhādarva	"	27	15	8,782	23,329	35,856	14,674	Gaikwār.
Umeta	"	36½	14	3,834	28,572	36,132	{ 3,846 2,402	} Gaikwār & British.
Sanjeli	Rājput	34	52	2,743	6,772	13,326	—	—
Nārukot	Bariya	143	53	5,603	5,682	15,049	32	Gaikwār.
Total States		4,545	2,949	430,428	10,22,885	18,11,277	1,11,221	
Sankheda Mehwās.								
1 Māndwa	Rājput	16½	8	4,987	22,223	32,533	1,704	Gaikwār.
2 Vajiria	Musalmān	21	21	3,929	25,387	29,962	3,852	"
3 Gad Boriad	Rājput	128	128	3,018	4,890	9,377	365	Chota Udaipur.
4 Shanor	"	11¼	7	1,219	8,861	11,819	1,214	Gaikwār.
5 Naswādi	"	19½	27	2,482	7,332	8,865	1,301	"
6 Palāsni	"	12	13	855	3,637	4,303	1,639	"
7 Bhilodia:—								
Motisinghjī	"	4½	3	732	5,451	8,866	933	"
Chhatarsinghjī	"	4½	5	789	4,942	5,699	933	"
8 Uchad	Musalmān	8½	13	1,482	9,319	10,214	679	"
9 Nāngām	"	3	4	367	1,600	1,834	995	"
10 Vāsan Virpur	"	12½	22	2,185	15,903	18,798	332	"
11 Agar	"	17	28	1,399	9,911	10,746	143	"
12 Vora	"	3¼	2	1,060	5,757	6,632	655	"
13 Alwa	"	5	8	805	4,756	5,577	52	"
14 Vāsan Sewada	"	12½	6	765	3,860	4,710	885	"
15 Chorāngla	Rājput	16	16	1,404	3,801	5,029	73	"
16 Vanmāla	Musalmān	10½	10	743	3,513	3,952	102	"
17 Sindiapura	"	4	6	483	2,570	2,866	44	"
18 Bihora	"	1¼	2	159	1,605	1,643	39	"
19 Vadia Virampur	"	1	1	96	890	890	79	"
20 Dudhpur	"	1¾	1	108	667	679	27	"
21 Rāmpura	Rājput	4½	4	1,457	2,315	3,556	1,094	"
22 Jiral Kāmsoli	Musalmān	5	10	672	4,541	4,852	256	"
23 Chudesar	"	2½	4	359	2,951	2,965	239	"
24 Regan	"	4	2	262	877	976	355	"
25 Nalia	"	1	1	56	164	270	28	"
26 Pantlavdi:—								
Akbar Khān	"	2½	3	178	2,212	2,544	127	Rājpīpla.
Kesar Khān	"	2½	3	221	1,750	2,213	43	"
Total Sankheda Mehwās		335½	358	32,272	1,61,685	2,02,370	18,188	

Of the 61 States, 6 are large and 55 are small. Of the large States, Rājpīpla in the south is of the first class; and five—Chota Udaipur and Bāriya in the centre, and Sunth, Lūnāvāda, and Bālāsinor in the north and north-west—are second-class States. The 55 small States include Kadāna and Sanjeli in the north, Bhādarva and Umeta in the

GENERAL STATISTICS OF EACH STATE IN THE REWĀ KĀNTHA AGENCY (*cont.*)

State.	Caste, tribe, or race of the ruling chief.	Areas in square miles.	Number of villages.	Population (1901).	Revenue (1903-4).		Tribute.	
					From land.	Total.	Amount.	To whom payable.
Pāndu Mehwās.					Rs.	Rs.	Rs.	
1 Pāndu	Musalmān	9	17	1,149	4,502	5,798	3,462	Gaikwār.
2 Sihora	Bāriya	15½	23	2,640	12,039	16,719	3,693	"
3 Chhāliar	Rājput	11	17	1,983	6,146	7,562	2,616	"
4 Nara	Bāriya	3	1	263	74	96	19	"
5 Varnol Māl	"	3½	2	426	1,000	1,094	65	"
6 Jumkha	"	1	1	145	222	335	39	"
7 Itwad	Rājput	6	10	843	893	1,152	462	"
8 Vakhtāpur	"	1½	1	244	606	816	116	"
9 Mevali	Pagi	5	2	900	1,100	1,603	1,155	"
10 Kasla Pagina Muvāda	"	1	1	41	55	159	50	"
11 Kanora	Bāriya	3¾	6	884	1,116	1,582	1,232	"
12 Poicha	Rājput	3¾	6	736	1,764	2,163	1,155	"
13 Gotardi	Pagi	3	1	228	385	478	327	"
14 Mokha Pagina Muvāda	"	1	1	96	115	445	96	"
15 Jesar	"	1½	2	313	392	433	116	"
16 Varnoli Nāni	Rājput	1	1	74	228	346	19	"
17 Dhari	"	3¾	5	821	1,567	2,121	731	"
18 Varnoli Moti	"	2	1	168	317	409	78	"
19 Rājpar	"	1¼	1	80	318	487	39	"
20 Litter Gothda	Kolī	1¼	1	416	583	654	155	"
21 Amrāpur	Bāriya	2	2	251	249	434	155	"
22 Dorka	Pātidār	3	1	911	4,395	4,703	850	"
23 Anghad	Kolī	4¼	1	2,269	2,735	5,181	1,344	"
24 Raika	Rājput	3	1	474	3,337	3,609	443	"
Total Pāndu Mehwās		91¼	105	16,355	44,138	58,379	18,417	
GRAND TOTAL		*4,971¾	†3,412	479,055	12,28,708	20,72,026	1,47,826	

* According to the latest information. † This figure is based on the latest information. Unpopulated villages were not enumerated at the Census of 1901.

west, Nārukot in the south-east, and three groups of Mehwās or turbulent villages. The 26 Sankheda Mehwās petty estates lie on the right bank of the Narbadā, while the 24 Pāndu Mehwās petty estates, including Dorka, Anghad, and Raika, which together form the Dorka Mehwās, are situated on the border of the Mahī.

Physical aspects.

In the outlying villages to the west along the Mahī, and in the north and south where Rewā Kāntha stretches into the plains of Gujarāt, the country is open and flat; but generally the Agency is hilly. Its two principal ranges are: in the south, the Rājpīpla hills, the westernmost spurs of the Sātpurās, forming the water-parting between the Narbadā and Tāpti valleys; and across the centre of the Agency, the spurs of the Vindhya range running west from the sandstone-crowned table-land of Ratanmāl, and forming the water-parting between the Narbadā and the Mahī. In the 120 miles of the course of the Mahī through Rewā Kāntha, the country changes from wild forest-clad hills in the east to a flat bare plain in the west. Its deep banks make this river of little use for irrigation. Its stream is too shallow and its bed too rocky to allow of navigation. The Narbadā enters the Agency through a country of hill and forest

with wooded or steep craggy banks. For the last 40 miles of its course, the country grows rich and open, the banks lower, the bed widens, and the stream is deep and slow enough for water-carriage. For 8 miles it is tidal.

Gneiss and Deccan trap are the predominant rock formations in Rewā Kāntha, the former in the northern part of the Agency, the latter in the southern. There are also some outcrops of Cretaceous rocks underlying the Deccan trap and of Tertiary rocks overlying it. The Cretaceous and Tertiary beds, including the Deccan trap, dip in various directions at low but distinct angles and are frequently faulty. The gneiss is mostly a coarse-grained granitoid rock, associated sometimes with crystalline schists. At the north-western extremity of the gneiss area are some ancient strata classified under the name of Chāmpāner beds. The Cretaceous rocks belong to the Lameta group, also called Bāgh or infra-trappean, which is of cenomanian age. Some outcrops fringe the northern limit of the Deccan trap area, along the valleys of the Asvan and Men rivers; and there are also some inliers in the midst of the basaltic outcrop, principally near Kawant and in the Devī valley, respectively north and south of the Narbadā. The Deccan trap contains the usual basaltic flows, with occasional intercalations of fossiliferous fresh-water inter-trappean beds. Ash-beds and agglomerates are frequent, and dikes are very abundant, especially in the Rājpīpla hills, which occupy the site of an ancient focus of volcanic activity. Intrusive sills, some of them trachytic instead of basaltic, also penetrate the underlying Lameta. The surface of the Deccan trap was greatly denuded and extensively transformed into ferruginous laterite during the Tertiary period. The lowest Tertiary beds at the western extremity of the Rājpīpla hills rest upon a thick mass of this ferruginous rock, and throughout the entire series a great many ferruginous beds recur at various horizons; the Tertiary beds consist largely of the accumulated products of disintegration from the adjoining volcanic area. Two groups have been distinguished in the Tertiary: a lower group with Nummulites, identical with the upper part of the Kīrthar in Sind, or the Spīntangi in Baluchistān, whose age is middle eocene; and an upper group without Nummulites, containing numerous bands of conglomerate. Marine and terrestrial fossils, the latter including fragments of fossil wood, occur in this upper subdivision, which answers to the Gāj group and Siwāliks. The celebrated agate-mines of Ratanmāl in the Rājpīpla State are situated in a conglomerate belonging to this group. The agates in their original form consist of geodes contained in the Deccan trap basalt which, having been set free by the disintegration of the enclosing rock, have been shaped into waterworn pebbles accumulated into conglomeratic layers. The exceptional value of the Ratanmāl agates is due to the lateritic ferruginous matrix in which they are

imbedded: they have been impregnated with ferruginous products giving them a much appreciated colour, which is further enhanced by artificial treatment.

A great part of Rewā Kāntha is forest. The commonest tree is the *mahuā*, found in great numbers in the States of Chota Udaipur and Bāriya. Teak is abundant, but, except in sacred village groves, is stunted. The other most abundant trees are black-wood, tamarind, mango, *rāyan*, *sādado* (*Terminalia Arjuna*), *beheda*, *timburrun*, *bili* (*Aegle Marmelos*), *khair*, &c. Many shrubs and medicinal plants are also found in the forests. Among grasses the most important are *viran* or *khas-khas* and elephant-grass, the stems of which are used to make native pens.

Tigers are very rare; but leopards, though yearly becoming fewer, are still found in considerable number. Bears and wild hog are common. *Sāmbar*, spotted deer, and *nīlgai* are found throughout the greater part of the Agency; bison in the extreme south-east. The painted and common sand-grouse, red spur-fowl, the peafowl, the painted and grey partridge, and quail are common. Common jack and painted snipe, black goose, cotton, whistling, common, and blue-winged teal, are some of the principal water-fowl.

In the forest-covered tracts of eastern Rewā Kāntha, with large areas of land rich in springs, the cold in January is very severe, ice forming on pools and the crops suffering at times from frost. The heat is at times intense, the thermometer in the shade in Lūnāvāda and Bāriya rising to 108° and 110°. In 1903 the minimum ranged from 54° in January to 80° in May, and the maximum from 85° in January to 112° in May. In 1873 the heat was so great that several persons died, and bats and monkeys are said to have fallen dead from the trees. Healthy in the open parts, the climate of the eastern hill and forest tracts, especially in Bāriya and Rājpīpla, is very sickly. The chief diseases are malarial fever, eye and skin complaints, diarrhoea, and dysentery.

The annual rainfall in the Agency varies from 38 to 48 inches. At Lūnāvāda, Rājpīpla, and Bālāsinor it averages 38 inches, and at Bāriya and Chota Udaipur 48 inches.

History.

Under the first Anhilvāda dynasty (746-961), almost all the Rewā Kāntha lands except Chāmpāner were under the government of the Bāriyas, that is, Kolī and Bhīl chiefs. In the eleventh, twelfth, and thirteenth centuries chiefs of Rājput or part Rājput blood, driven south and east by the pressure of Muhammadan invasion, took the place of the Kolī and Bhīl leaders. The first of the present States to be established was the house of the Rājā of Rājpīpla. Kadāna is said to have been established as a separate power about the thirteenth century by Limdevjī, younger brother of Jhālam Singh, a descendant of Jhālam Singh, the founder of the town of Jhālod

in the Pānch Mahāls. About the same date Jhālam Singh's son settled at the Bhīl village of Brahmapurī, changing its name to Sunth. In the sixteenth century the Ahmadābād Sultāns brought under submission almost the whole of Rewā Kāntha. In the seventeenth century, although a member of the Bābi family founded the State of Bālāsinor, the power of the Gujarāt viceroys began to decline. The Marāthās soon spread their authority over the plains, and collected tribute with the help of military force.

The younger branches of the chiefs' families had from time to time been forced to leave their homes and win for themselves new States; and these, with the descendants of a few of the original chiefs, form the present landholders of the small estates of the Agency. Under the Marāthās, they plundered the country; and as the Gaikwār failed to keep order, the British had to undertake the task. In 1822 an agreement was concluded with the Gaikwār, under which the control of all the Baroda tributaries was vested in the Bombay Government. In this year Mr. Willoughby was appointed to settle the affairs of the territory. In 1823 the position and tribute of the chiefs of the Sankheda Mehwās were settled by him. In 1825 the chiefs of the Pāndu Mehwās came under British control. At the same time the political control of the Pānch Mahāls was made over by Sindhia to the Government, and Bāriya State was transferred from the Bhopāwar Agency, Central India. The Political Agency of Rewā Kāntha was established in 1826 to take charge of Rewā Kāntha, including Rājpīpla, Sindhia's Pānch Mahāls, the Mehwās States on the Mahī and Narbadā, Bāriya, Chota Udaipur, and Nārukot of the Naikdas. The States of Lūnāvāda and Sunth, which had been under British control since 1819, were afterwards transferred from the Mahī Kāntha Agency. In 1829 the appointment of Political Agent was abolished, and the chiefs were left very much to themselves for a few years. In 1842 the Political Agency at Rewā Kāntha was re-established, and the powers of the chiefs in criminal cases were defined. In 1853 the State of Bālāsinor was transferred from the Kaira Collectorate; and Sindhia handed over for a period of ten years the administration of the Pānch Mahāls. In 1861 the Pānch Mahāls were exchanged by Sindhia for land near Gwālior, and became British territory. Two years later the Pānch Mahāls were removed from the control of the Agent and formed into a separate charge. In 1876 the Pānch Mahāls were raised to the rank of a District, the officer in charge of it having control of the Rewā Kāntha States. The estate of Nārukot is managed by the British Government, which takes half the total revenue, the remaining half going to the chief, under the agreement of 1839. Since 1825 the peace of Rewā Kāntha has thrice been broken: in 1838 by a Naikda (Bāriya, Chota Udaipur, and Nārukot) rising: in 1857 by the presence of a rebel force

from Northern India; and in 1868 by another Naikda (Nārukot) disturbance.

The population at the last four enumerations was: (1872) 512,569, (1881) 549,892, (1891) 733,506, and (1901) 479,065. The great decrease during the last decade is due to severe famine. The average density is 96 persons per square mile. The Agency contains 6 towns and 2,817 villages. The chief towns are NĀNDOD, LŪNĀVĀDA, and BĀLĀSINOR. Hindus number 435,023, or 90 per cent. of the total; Muhammadans, 23,712, or 5 per cent.; aboriginal tribes, 18,148; Jains, 1,400; and Christians, 267. The Brāhman caste (20,000) is largely represented by the Audich (7,000) and Mewāda Brāhmans (5,000). There are 17,000 Rājputs, and among cultivating castes Kunbīs (34,000) are important; but the States of the Agency are mainly populated by aboriginal tribes of Bhīl and Kolī origin. Though these tribes suffered severely in the famine of 1899–1902, the last Census disclosed 91,000 Bhīls, 150,000 Kolīs, 32,000 Dhodias, 27,000 Naikdas, and 18,000 Dhankas. Disinclined to regular cultivation, these tribes lead a wandering life, subsisting very largely on forest produce. They are thriftless and fond of liquor, and when intoxicated will tire themselves out in wild dancing. Crime, however, is less frequent among them than formerly. Among Hindu low castes, Mahārs number 14,000.

Population.

Rewā Kāntha includes great varieties of soil. In the north near the Mahī, and in the south near the Narbadā, are rich tracts of alluvial land. In Lūnāvāda and Bālāsinor in the north, light brown *goradu*, not so rich as that of Central Gujarāt, is the prevailing soil. There are also a few tracts of grey *besar* land, generally growing rice. Near the Shedhi river are some patches of land called *bhejvāli*, very damp, and yielding a cold-season crop of wheat and pulse, but not well suited for cotton. In Sunth the black or *kāli* soil holds moisture well, and without watering yields two crops a year. The Bāriya lands—light brown *goradu*, deep black *kāli*, and sandy *retal*—are capable of yielding any crop except tobacco. The black loam of the Sankheda and Pāndu Mehwās is nearly as rich as the cotton lands of Amod and Jambusar in Broach. Rājpīpla, especially its Narbadā districts, is exceedingly fertile. Except a few tracts of rocky and inferior black soil, Rewā Kāntha is on the whole fertile. In the open country, in the hands of Kunbī and other high-class husbandmen, the tillage is the same as in Central Gujarāt. In the hilly and wooded tracts inhabited by Bhīls, Kolīs, and other unsettled tribes, cultivation is of the rudest kind.

Agriculture.

Of the total area, about 1,719 square miles are cultivable, of which 1,030 square miles were actually under cultivation in 1903–4. The principal crops are: cereals (maize, rice, *jowār*, *bājra*, and *kodra*)

pulses (*tur*, *math*, and gram); oilseeds (castor, gingelly, and *til*); and fibres (cotton and *san*-hemp). The wheat grown in the Agency is of two kinds, *vājia* and *kātha*. The rice is of a coarse description known as *vari*. Of *kodra* a local variety (*minia kodra*) has a narcotic property, which is to a certain extent neutralized by washing and drying two or three times before grinding. Turmeric, chillies, cumin, melons, guavas, custard-apples, and plantains are commonly grown.

The domestic animals are buffaloes, cattle, horses, sheep, and goats. In Bālāsinor, Lūnāvāda, Sunth, and Bāriya goats are carefully bred, and yield fairly close and fine wool. Horse-breeding is carried on in Sunth.

Only 4,637 acres were irrigated in 1903-4, distributed as follows: Rājpīpla (127), Lūnāvāda (2,856), Bālāsinor (1,438), Sunth (216). Wells are the only sources of irrigation.

The greater part of Rewā Kāntha is covered with forests, of which the most valuable are in Bāriya State. The chief trees have already been described under Botany. The forest Reserves are of two kinds: State Reserves, or tracts in the large forests where the Darbār only can cut; and sacred village groves, where the finest timber is found. Most of the villages have two kinds of groves—one never cut except on emergencies, and the other less sacred and felled at intervals of thirty years. Except for the wants of the State, or when the villagers are forced to make good losses caused by some general fire or flood, the fear of the guardian spirit keeps the people from destroying their village groves. The forests were once famous for their large store of high-class timber. Strict conservancy in the neighbouring Pānch Mahāls District led to much reckless felling in the Agency, but greater care of their forests is now taken by the chiefs.

Manganese ore and mica deposits are found in Chota Udaipur and Jambughoda, and a prospecting licence for manganese in the latter place has been issued. A prospecting and exploring licence will shortly be issued for Chota Udaipur. *Akīk* (agate or carnelian) is worked in Rājpīpla.

Trade and communications.

The Rewā Kāntha manufactures are of little importance. The chief industries are the making of catechu from the bark of the *khair*, country soap, coarse cotton cloth, and tape for cots. The Bhīls make good bamboo baskets and matting. Since the iron furnaces ceased work, the swords for which Nāndod was once famous are no longer made. There are three cotton-ginning factories worked by steam, and eight distilleries.

The trade resembles in many respects that of the Pānch Mahāls. Both have a through traffic between Gujarāt and Central India, and a local trade west with Gujarāt and east with Rājputāna, Central India, and Khāndesh. While the opening of the railways described in the

following paragraphs has increased the local trade westwards, the through trade has dwindled, the old direct routes with their rough roads and heavy dues failing to compete with the easy railway journey by these lines. The principal exports are timber, firewood, *mahuā*, and other forest produce; and the imports are piece-goods, salt, sugar, and metals.

No State of the Agency possessed railway communications until 1890. The extension of the Anand-Godhra branch of the Bombay, Baroda, and Central India Railway to Ratlām since 1893 has connected the Bāriya State with the main line. Similarly, the construction of the Dabhoi and Baroda-Godhra lines has facilitated the trade of the Chota Udaipur, Rājpīpla, and Bāriya States with the neighbouring Baroda territory, and the Rājpīpla State Railway in 1899 has connected the State with Broach District as well as with the chief towns on the main line of the Bombay, Baroda, and Central India Railway. Many roads were newly constructed or repaired with the advantage of cheap labour during the famine of 1899–1902. The total length of roads is about 450 miles. There are 27 post offices in the Agency maintained by the British Government.

Famine.

The first famine of which memory remains was in 1746–7. The next severe famines were in 1790–1 and 1812–3, while 1802 and 1825 were years of scarcity. In 1883–4 the rainfall was scanty, and the small harvest was destroyed by swarms of locusts. After a period of fifteen years the Agency again suffered from severe famine in 1899–1902. Relief measures were commenced in November, 1899, and were brought to a close in October, 1902. The highest daily average number on relief was 40,000 in April, 1900, which decreased to 311 in October, 1901, and again rose to 12,000 in May, 1902. More than 10 lakhs was spent on relief. The famine loans contracted by the Darbārs from Government amounted to 4 lakhs, of which Rs. 2,25,000 was borrowed by Rājpīpla and the rest by the other States in the Agency.

Administration.

Civil courts have only lately been introduced into Rewā Kāntha. Disputes were formerly settled by arbitration, and money-lenders were allowed to recover their outstanding debts as they best could. At present there are 32 civil courts in the Agency, of which 17 are under the supervision of the British Government, and 15 in the States. For the purpose of administering criminal justice, the Rewā Kāntha authorities belong to five classes: *thānadārs* with second and third-class magisterial powers in the estates of the petty Mehwās chiefs; the petty chiefs of Kadāna, Sānjeli, Bhādarwa, and Umeta, who have the powers of second-class magistrates; the second-class chiefs of Bāriya, Bālāsinor, Rājpīpla, Lūnāvāda, Sunth, and Chota Udaipur, with full jurisdiction over their own

subjects; the chief of Rājpīpla exercising powers of life and death with jurisdiction over British subjects, except in the case of capital offences by the latter, for the trial of which the Political Agent's sanction is required; and the Agency courts of the Assistant Political Agent and the Political Agent of the five second-class States. Theft, hurt, mischief, and offences against excise and forest laws are the commonest forms of crime. Bālāsinor is at present under British management owing to the minority of the chief; and of the five minor estates, Sanjeli, Umeta, and Nārukot are similarly administered.

Except such portions as they have alienated, the Rewā Kāntha lands belong to the chiefs. The heads of the larger estates take no share in the actual work of cultivation; some small chieftains, whose income is barely enough to meet their wants, have a home farm tilled by their servants; and proprietors (*tālukdārs*) whose estates are too small to lease have no resource but to till their own land. Save that they have to pay no part of their produce to superior holders, men of this class do not differ from ordinary cultivators.

To collect the land revenue, the large States are distributed into *tālukas*, each under a commandant (*thānadār*), who, besides police and magisterial duties[1], has, as collector of the revenue, to keep the accounts of his charge, and, except where middle-men are employed, to collect rents from the villagers. Under the *thānadārs* one or more accountants (*talātis*) are generally engaged. In the petty Mehwās estates the proprietors themselves perform the duties of both *thānadār* and *talāti*. In the small estates under direct British management the revenue is collected by officers known as attachers or *iaptidārs*. Rewā Kāntha villages belong to two main classes: State villages held and managed by the chiefs, and private villages alienated or granted under some special arrangement. Private villages are of six varieties: granted (*inām*), held under an agreement (*patāvat*), given as a subsistence (*jīvarakh*), temple (*devasthān*), charitable (*dharmāda*), and held at a fixed rent (*udhad*). In State lands the form of assessment varies from the roughest billhook or plough cess to the elaborate system in force in British territory. The former ranges from 4 annas to Rs. 20, and the latter from annas $4\frac{1}{4}$ to Rs. 25 per acre. The crop-share system prevails in parts of Bālāsinor, Sunth, and the petty estate of Chudesar, and in the alluvial lands of Māndwa in the Sankheda Mehwās. The form of assessment levied from the rudest and most thriftless Bhīls and Kolīs, who till no land, consists of cesses known as *dātardi*, *pāni*, *kodāli*, &c. From those a degree better off, who are able to keep bullocks, a plough tax is levied. Among some of the more settled and intelligent communities a rough form of the separate

[1] In the States mentioned as being under the direct management of the British Government, *thānadārs* have no police and magisterial powers.

holding (*khātābandi*) system has been introduced, and from others cash acre-rates (*bighoti*) levied. In such cases the holdings are roughly measured. Survey settlements are being gradually made throughout the Agency. Except in the surveyed States, where fixed rates are being introduced, the rates levied under hoes, or ploughs, or on the crop-share system, are supplemented by cesses of different kinds.

In former times the scattered nature of the villages and the isolated position of the country, the rivalry among the chiefs to secure settlers, and the lavish grants of lands to Brāhmans, &c., prevented the land from yielding any large amount of revenue. Between 1863 and 1865 the rise in the price of field produce fostered the spread of tillage and increased the rental of rich lands. Since then, owing to the opening of railways and the construction of roads, the cultivated area has continued to increase and the land revenue has steadily risen. Of the total revenue of 21 lakhs raised in 1903–4, 14 lakhs was derived from land, including forest revenue, customs yielded nearly one lakh, and excise nearly 2½ lakhs. Rājpīpla has a net income of about Rs. 11,000 from the railway constructed by the State, at a cost of 13 lakhs, in 1899. The total expenditure amounted to 22 lakhs, and was chiefly devoted to Darbār charges (5½ lakhs), tribute (1½ lakhs), administration (1½ lakhs), public works (1½ lakhs), police (1¼ lakhs), military (Rs. 75,000), education (Rs. 67,000), and forests (Rs. 34,000).

There are four municipalities—NĀNDOD, RĀMPUR, LŪNĀVĀDA, and BĀLĀSINOR—with an aggregate income of one lakh in 1903–4.

Rājpīpla maintains a military force, which in 1905 consisted of 75 infantry and 36 cavalry, and the State owns 6 guns, of which 4 are unserviceable. The total military force in the Agency consists of 214 cavalry, 75 infantry, and 55 guns, of which 31 are unserviceable.

Regular police is now provided by Government for the Mehwās States, in place of the Gaikwār's Contingent, which was disbanded in 1885. The large States maintain a police force of their own. At a time when several of the States were under management during the minority of their chiefs, a system of joint police was established; but this had to be given up as each chief succeeded to his inheritance. In 1903–4 the strength of the police was 1,402, of whom 162 were mounted. In the 29 jails and lock-ups, 1,099 prisoners were confined in 1903–4.

The number of boys' schools in 1903–4 was 160, with 6,487 pupils, and of girls' schools 10, with 937 pupils. There are 6 libraries in the Agency, and a printing press at Nāndod for State work. The average daily attendance at the 18 dispensaries maintained was 221 in 1903–4, the total number of patients treated being 80,722. Nearly 15,000 persons were vaccinated in the same year.

Rewāri Tahsīl (*Riwāri*).—*Tahsīl* of Gurgaon District, Punjab,

lying between 28° 5′ and 28° 26′ N. and 76° 18′ and 76° 52′ E., with an area of 426 square miles. It is almost entirely detached from the rest of the District, and is bounded on three sides by Native States. The isolated *pargana* of Shāhjahānpur, situated to the south in Alwar territory, is also included in this *tahsīl*. The population in 1901 was 169,673, compared with 161,332 in 1891. It contains the town of REWĀRI (population, 27,295), the head-quarters; and 290 villages. The land revenue and cesses in 1903–4 amounted to 3·2 lakhs. Rewāri formed during the eighteenth century a semi-independent principality under a family of Ahīr chiefs. On the cession of the country to the British, the revenue was first farmed by the Rājā of Bharatpur and then by the Ahīr chief of the day. It was taken over by the Government in 1808. Shāhjahānpur belonged to the Chauhān Rājputs until the Haldias, dependents of Jaipur, wrested it from them in the eighteenth century. It lapsed to the Government in 1824. The *tahsīl* consists of a sandy plain, the monotony of which is varied towards the west by irregular rocky hills of low elevation. The Kasauti on the extreme west and the Sāhibī on the east are two torrents which contribute largely to the fertility of the land along their banks. In other parts there is copious well-irrigation.

Rewāri Town (*Riwāri*).—Head-quarters of the *tahsīl* of the same name in Gurgaon District, Punjab, situated in 28° 12′ N. and 76° 38′ E., on the Delhi and Jaipur road, 32 miles south-west of Gurgaon, and the junction of the Rewāri-Bhatinda branch with the main line of the Rājputāna-Mālwā Railway; distant by rail from Calcutta 1,008 miles, from Bombay 838, and from Karāchi 904. Population (1901), 27,295, including 14,702 Hindus and 11,673 Muhammadans. Rewāri was formerly a halting-place on the trade road from Delhi to Rājputāna, celebrated for the manufacture of brass and pewter. These manufactures are still carried on; but since the opening of the railway the chief importance of the town lies in its trade in grain and sugar, sent westward, while salt and iron from Alwar are forwarded to the United Provinces.

The ruins of Old Rewāri, which local tradition connects with a nephew of Prithwī Rāj, lie some distance to the east of the present town and are said to have been built about 1000 by Rājā Reo or Rāwat, who called it after his daughter Rewati. Under the Mughals, Rewāri was the head-quarters of a *sarkār*, but its Rājā seems to have been almost independent. In the reign of Aurangzeb the town and territory of Rewāri were obtained by a family of Ahīrs, who held them until annexation by the British. Rewāri was brought directly under British administration in 1808–9, and the village of Bhārāwās in its vicinity was until 1816 the head-quarters of the District. The municipality was created in 1867. The income during the ten years ending 1902–3

averaged Rs. 56,300, and the expenditure Rs. 58,100. In 1903-4 the income amounted to Rs. 48,800, chiefly derived from octroi, and the expenditure to Rs. 56,400. Rewāri contains the only high school in the District, managed by the Educational department. The town has a Government dispensary, and another belonging to the S. P. G. Mission in charge of a lady doctor.

Rian.—Head-quarters of a *jāgīr* estate of the same name in the Merta district of the State of Jodhpur, Rājputāna, situated in 26° 32′ N. and 74° 14′ E., about 68 miles north-east of Jodhpur city and 24 miles south-east of Merta Road station on the Jodhpur-Bīkaner Railway. Population (1901), 4,574. The town is walled, and on a rocky hill immediately to the east and about 200 feet above the plain stands a stone fort. The estate consists of eight villages yielding a revenue of about Rs. 36,000, and is held by a Thākur who is the head of the Mertia sept of the Rāthor Rājputs. The present Thākur, Bijai Singh, is a member of the State Council.

Rintimbur.—Fort in Jaipur State, Rājputāna. *See* RANTHAMBHOR.

Rītpur (or Rīdhpur).—Village in the Morsī *tāluk* of Amraotī District, Berār, situated in 21° 14′ N. and 77° 51′ E. Population (1901), 2,412. The village is mentioned in the *Ain-i-Akbarī* as the head-quarters of a *pargana*. It was a place of importance as the *tankhwāh jāgīr* of Salābat Khān, governor of Ellichpur, at the end of the eighteenth century. At that time it was enclosed by a stone wall, which has almost entirely disappeared, and is said to have contained 12,000 inhabitants, many of whom fled owing to the oppression of Bisan Chand, *tālukdār* in the time of Nāmdār Khān. The principal buildings of interest are Rām Chandra's temple, the Mahānubhāva temple called Rāj Math, and a mosque which has been the subject of much dispute.

Rītpur is the chief seat and place of pilgrimage of the sect vulgarly known as Mānbhau, more correctly Mahānubhāva. Its founder was Kishan Bhat, the spiritual adviser of a Rājā who ruled at Paithan about the middle of the fourteenth century. His followers believe him to have been the demi-god Krishna, returned to earth. His doctrines repudiated a multiplicity of gods; and the hatred and contempt which he endured arose partly from his insistence on the monotheistic principle, but chiefly from his repudiation of the caste system. He inculcated the exclusive worship of Krishna as the only incarnation of the Supreme Being, and taught his disciples to eat with none but the initiated, and to break off all former ties of caste and religion. The scriptures of the sect are comprised in the Bhagavad Gīta, which all are encouraged to read. The head of the sect is a *mahant*, with whom are associated a number of priests. The sect is divided into two classes, celibates and *gharbārīs* or seculars. Celibacy is regarded as the perfect life, but

matrimony is permitted to the weaker brethren. The celibates, both men and women, shave all hair from the head and wear clothes dyed with lampblack. The lower garment is a waistcloth forming a sort of skirt, and is intended to typify devotion to the religious life and consequent indifference to distinctions of sex. The dead are buried in salt, in a sitting posture. Kishan Bhat is said to have obtained a magic cap, by wearing which he was enabled to assume the likeness of Krishna, but the cap was taken from him and burnt. This is probably a Brāhmanical invention, like the story of Kishan Bhat's amour with a Māng woman, which was possibly composed to lend colour to the absurd Brāhmanical derivation of Mānbhau, the vulgar corruption of the name of the sect (*Māng* + *bhau* = 'Māng-brother'). The name Mahānubhāva is borne by the sect with pride, and appears to be derived from *mahā* ('great') and *anubhava* ('intelligence'). It is written Mahānubhāva in all their documents. The Mahānubhāvas appear to be a declining sect. They numbered 4,111 in Berar in 1881, but in 1901 there were only 2,566.

[In former editions of the *Gazetteer*, the erroneous connexion of the Mānbhau sect with the Māng caste was unfortunately accepted as true. In consequence of some legal proceedings which incidentally arose from this misstatement, the *mahants* of the sect put themselves into communication with Prof. R. G. Bhandarkar of Poona, and also placed at his disposal their sacred books, which, as attested by colophons, go back to the thirteenth century. Prof. Bhandarkar has satisfied himself of the genuineness of these books, which are written in an archaic form of Marāthī. They prove that the Mānbhau sect (or Mahānubhāva, as it is there called) was founded by one Chakradhara, a Karhāda Brāhman, who was contemporary with the Yādava Krishna Rājā (A.D. 1247–60), and is regarded as an incarnation of Dattātreya. It is interesting to find that two of the present *mahants* of the Mānbhau sect are natives of the Punjab, and that they have a *math* at Kābul. As explaining the introduction of the name of Kishan Bhat, mentioned above, Prof. Bhandarkar has further discovered in the Mānbhav books an account of various religious sects formerly flourishing in Mahārāshtra. Among them is one called Matangapatta, confined to Mahārs and Māngs, which is said to have been founded by one Krishnabhatta, about whom is told the legend of an amour with a Māng woman. This sect is still represented in Ahmadnagar District.]

Riwa.—State and town in Central India. *See* REWAH.

Riwāri.—*Tahsīl* and town in Gurgaon District, Punjab. *See* REWĀRI.

Robertsganj.—Southern *tahsīl* of Mirzāpur District, United Provinces, comprising the *parganas* of Barhar, Bijaigarh, Agorī, and Singraulī (including Dūdhī), and lying between 23° 52′ and 24° 54′ N. and 82° 32′ and 83° 33′ E., with an area of 2,621 square miles.

Population fell from 241,779 in 1891 to 221,717 in 1901. There are 1,222 villages and two towns, neither of which has a population of 5,000. The demand for land revenue in 1903-4 was Rs. 64,000, and for cesses Rs. 24,000. This *tahsīl* is situated entirely in the hilly country, and supports only 85 persons per square mile. About one-third of it lies on the Vindhyan plateau, which is drained to the west by the Belan, and is bounded on the south by the great rampart of the Kaimurs looking down on the valley of the Son. A fertile strip of moist land crosses the plateau between the Belan and the Kaimurs, and produces a great variety of crops. South of the Son lies a tangled mass of hills, covered with low scrub jungle, and interspersed by more fertile valleys and basins, in which cultivation is possible. *Pargana* Dūdhī is managed as a Government estate, and proprietary rights exist in only one *tappa*. The whole tract south of the Son is 'non-regulation,' and is administered under special rules suitable to the primitive character of its inhabitants. Agricultural statistics are maintained only for an area of 654 square miles, of which 255 were under cultivation in 1903-4, and 27 were irrigated. Dams and embankments are the chief means of irrigation.

Robertsonpet.—Town recently founded in Kolār District, Mysore. *See* KOLĀR GOLD FIELDS.

Roha Tāluka.—Central *tāluka* of Kolāba District, Bombay, lying between 18° 17′ and 18° 32′ N. and 72° 57′ and 73° 20′ E., with an area of 203 square miles. It contains one town, ROHA (population, 6,252), the head-quarters; and 133 villages. The population in 1901 was 47,780, compared with 46,064 in 1891. The density, 235 persons per square mile, is much below the District average. The demand for land revenue in 1903-4 was 1·22 lakhs, and for cesses Rs. 8,000. Roha is for the most part hilly, and contains the rich valley of the Kundalika river. The rice lands are well watered during the rainy season, but in the cold and hot months the supply of drinking water is defective. On the hill slopes and uplands the soil is a mixture of earth and broken trap. In the level parts the soil varies from reddish to yellow or black. During the ten years ending 1903 the rainfall averaged 127 inches. The eastern parts of Roha are much cut off from the sea-breeze, and therefore oppressive in the hot season, but parts of the west and south-west are more open.

Roha Town (known as Roha Ashtami).—Head-quarters of the *tāluka* of the same name in Kolāba District, Bombay, situated in 18° 26′ N. and 73° 7′ E., on the left bank of the Kundalika river, 18 miles from its mouth. Population (1901), 6,252. Roha is a great rice market for supplying Bombay city. The village of Ashtami, on the opposite bank of the river, is included within the municipal limits of Roha. Oxenden (1673) called it Esthemy. The municipality, estab-

lished in 1866, had an average revenue during the decade ending 1901 of Rs. 6,200. In 1903-4 the income was Rs. 6,500. Ferry steamers run from Roha to Revadanda or Lower Chaul twice a day. The town contains a dispensary and seven schools.

Rohankhed.—Village in the Malkāpur *tāluk* of Buldāna District, Berār, situated in 20° 37′ N. and 76° 11′ E., immediately below the Bālāghāt plateau. Population (1901), 2,130. The village has been the scene of two battles. In 1437 Nasīr Khān, Sultān of Khāndesh, invaded Berār to avenge the ill-treatment of his daughter by Alā-ud-dīn Bahmani, to whom she had been married. Khalaf Hasan Basri, governor of Daulatābād, who had been sent against the invader, fell upon Nasīr Khān at Rohankhed, routed him, and pursued him to his capital, Burhānpur, which he sacked. In 1590 Burhān, a prince of the Ahmadnagar dynasty, who had taken refuge in the Mughal empire, invaded Berār in company with Rājā Alī Khān, vassal ruler of Khāndesh, to establish his claim to the kingdom of Ahmadnagar against his son Ismail, who had been elevated to the throne by a faction headed by Jamāl Khān. The invaders met the forces of Jamāl Khān at Rohankhed and utterly defeated them, Jamāl Khān being slain and the young Ismail captured. At Rohankhed there is a small but handsome mosque, built in 1582 by Khudāwand Khān the Mahdavī, a follower of Jamāl Khān. This Khudāwand Khān is not to be confused with Khudāwand Khān the Habshī, who was governor of Māhūr a century earlier.

Rohanpur.—Village in Mālda District, Bengal, situated in 24° 49′ N. and 88° 20′ E., on the Pūrnabhabā, a short distance above its junction with the Mahānandā. Population (1901), 1,112. The village is a considerable dépôt for the grain passing between Dinājpur and the western parts of Bihār.

Rohilkhand.—The name is often applied to the present Bareilly Division of the United Provinces; but it also denotes a definite historical tract nearly corresponding with that Division *plus* the Rāmpur State and the Tarai *parganas* of Nainī Tāl District. It is derived from a Pashtū adjective *rohelah* or *rohelai*, formed from *rohu* ('mountain'). Rohilkhand as thus defined contains an area of 12,800 square miles, forming a large triangle bounded on the north by the Himālayas, on the south-west by the Ganges, and on the east by the Province of Oudh. In the north lies a strip of the Tarai below the hills, with large stretches of forest land, the haunt of tigers and wild elephants, and only small patches of cultivation belonging to the Thārus and Boksās, jungle tribes, apparently of Mongolian origin, who seem fever-proof. Passing south the land becomes drier, and the moisture drains into the numerous small streams rising in the Tarai and joining the Rāmgangā or the Ganges, which ultimately receive most of the drainage. In the

northern portions of Bijnor and Bareilly Districts, canals drawn from the Tarai streams irrigate a small area. The climate is healthy, except near the Tarai, and has a smaller range of temperature than the tract south of the Ganges. The rainfall is heavy near the hills, but gradually decreases southwards. The usual crops of the plains are grown throughout the tract, but sugar-cane and rice are of special importance. Wheat, gram, cotton, and the two millets (*jowār* and *bājra*) are also largely produced.

In early times part of the tract was included in Northern PANCHĀLA. During the Muhammadan period the eastern half was long known as Katehr. The origin and meaning of this term is disputed. It is certainly connected with the name of the Katehriyā Rājputs, who were the predominant clan in it; but their name is sometimes said to be derived from that of the tract, which is identified with the name of a kind of soil called *kather* or *katehr*, while traditions in Budaun District derive it from Kāthiāwār, which is said to be the original home of the clan. Elsewhere the tribal traditions point to the coming of the Katehriyās into this tract, from Benares or Tirhut, in the twelfth and fourteenth centuries. The portion they first occupied seems to have been the country between the Rāmgangā and the Ganges, but they afterwards spread east of the former river. When the power of Islām was extending westwards, Rāthor princes ruled at Budaun; but the town was taken by Kutb-ud-dīn Aibak in 1196, and afterwards held continuously by the Muhammadans. The province was, however, always turbulent, and two risings are described in the middle of the thirteenth century. In 1379 or 1380 Khargu, a Hindu chief of Katehr, murdered Saiyid Muhammad, the governor, at a feast; and Fīroz III Tughlak, foiled in his attempt to seize Khargu, who fled to Kumaun, appointed an Afghān governor at Sambhal with orders 'to invade the country of Katehr every year, to commit every kind of ravage and devastation, and not to allow it to be inhabited until the murderer was given up.' Thirty-five years later, when the Saiyid dynasty was being founded, another Hindu, Har Singh Deo, rebelled, and though several times defeated gave trouble for two or three years. Mahābat Khān, the governor, successfully revolted in 1419 or 1420 from the rule of Delhi; and the king, Khizr Khān, failed to take Budaun, which remained independent for four years, till after the accession of Mubārak Shah, who showed greater force and received Mahābat Khān's submission. In 1448 Alam Shāh Saiyid left Delhi and made Budaun his capital, careless of the fact that he was thus losing the throne of Delhi, which was seized by Bahlol Lodī. Until his death thirty years later, Alam Shāh remained at Budaun, content with this small province. During the long struggle between the Jaunpur and the Delhi kings, the former held parts of Katehr for a time. In the

first half of the sixteenth century few events in this tract have been recorded; but the last revolt of the Katehriyās is said to have taken place in 1555–6. In the reign of Akbar the *sarkār* of Budaun formed part of the *Sūbah* of Delhi. The importance of Budaun decreased, and Bareilly became the capital under Shāh Jahān, while Aurangzeb included the district of Sambhal (Western Rohilkhand) in the territory ruled over by the governor of Katehr. At this time Afghāns had been making many settlements in Northern India; but they were generally soldiers of fortune, rather than politicians or men of influence. Under Shāh Jahān they were discouraged; but they were found useful in the Deccan campaigns of Aurangzeb, and early in the eighteenth century the Bangash Pathān, Muhammad Khān, obtained grants in FARRUKH-ĀBĀD, while Alī Muhammad Khān, whose origin is obscure, began to seize land north of the Ganges. The former held the southern part of the present Districts of Budaun and Shāhjahānpur; but the principality he carved out for himself lay chiefly south of the Ganges. Alī Muhammad gave valuable help to the governors of Morādābād and Bareilly against the Rājā of Kumaun, and also assisted the emperor in his intrigues against the Saiyids of Bārha, for which he was rewarded with the title of Nawāb. When Nādir Shāh invaded India, Alī Muhammad gained many recruits among the refugees from Delhi, and took advantage of the weakness of the central government to annex all the territory he could seize. The governors of Morādābād and Bareilly were sent against him, but both were slain, and in 1740 he was recognized as governor of Rohilkhand. His next exploits were against Kumaun; but by this time Safdar Jang, Nawāb of Oudh, had begun to look on him as a dangerous rival, and persuaded the emperor that the Rohillas should be driven out. In 1745 Alī Muhammad was defeated and imprisoned at Delhi, but afterwards he was appointed to a command in the Punjab. On the invasion by Ahmad Shāh Durrāni in 1748, he was able to return to Rohilkhand, and by judiciously supporting the claims of Safdar Jang to be recognized as Wazīr, obtained a fresh grant of the province. On the death of Alī Muhammad, Rahmat Khān, who had been one of his principal lieutenants, was appointed regent for his sons. Safdar Jang renewed his attempts to take Rohilkhand, and persuaded Kaim Khān, son of Muhammad Khān Bangash, of Farrukhābād, to invade it. The attack was unsuccessful, and Kaim Khān lost his life. Safdar Jang at once annexed the Farrukhābād territories. But Kaim Khān's brother, Ahmad Khān, regained them, and attempted to win the active sympathy of the Rohillas, which was at first refused and then given too late; for Safdar Jang called in the Marāthās, with whose help he defeated the Rohilla and Bangash forces, and Rahmat Khān was driven to the foot of the Himālayas. In 1752 he yielded and gave bonds for 50 lakhs, which

were made over to the Marāthās in payment of their services. When Ahmad Shāh Durrāni invaded India a second time, he brought back Alī Muhammad's sons, Abdullah and Faiz-ullah, who had been in Kandahār since the previous invasion; but Rahmat Khān skilfully arranged a partition of Rohilkhand, so that the brothers fought among themselves, and eventually Rahmat Khān and his friends became masters of most of the province. About this time (1754) another Pathān, named Najīb Khān, was rising in power. At first he acquired territory in the Doāb, but in 1755 he founded Najībābād in Bijnor, and thus held the northern part of Rohilkhand independently of the other Rohillas. After the third Durrāni invasion in 1757, he became Bakhshī or paymaster of the royal troops, and the following year an attempt was made, through the jealousy of other nobles, to crush him by calling in the Marāthās. Rahmat Khān and Shujā-ud-daula, the new Nawāb of Oudh, were alarmed for their own safety, and hastened to help him, and the Marāthās were driven out of Rohilkhand. When Ahmad Shāh Durrāni invaded India a fourth time, the Rohillas joined him and took part in the battle of Pānīpat (1761), and Rahmat Khān was rewarded by a grant of Etāwah, which had, however, to be conquered from the Marāthās. In 1764 and again in 1765 the Rohillas gave some assistance to Shujā-ud-daula in his vain contests with the English at Patna and at Jājmau; but they did not suffer for this at first. In fact the next five years were prosperous, and Rahmat Khān was able to undertake one of the most necessary reforms of a ruler in this part of India—the abolition of internal duties on merchandise. In 1770 the end began. Etāwah and the other territory in the Central Doāb were annexed by the Marāthās. Najīb Khān and Dunde Khān, who had been Rahmat Khān's right hand, both died. In 1771 the Marāthās attacked Zābita Khān, son of Najīb Khān, and drove him from his fort at Shukartār on the Ganges, and the next year harried Rohilkhand. In June, 1772, a treaty was arranged between the Rohillas and Shujā-ud-daula, in which the latter promised help against the Marāthās, while the former undertook to pay 40 lakhs of rupees for this assistance. The treaty was signed in the presence of a British general. The danger to Oudh, and also to the British, from the Marāthās was now clear. Zābita Khān openly joined them in July, 1772, and at the end of the year they extorted a grant of the provinces of Korā and Allahābād from Shāh Alam. In 1773 they demanded from Rahmat Khān the payment of the 50 lakhs promised twenty years before, and again entered Rohilkhand. British troops were now sent up, as it had become known that Rahmat Khān was intriguing with the Marāthās, who openly aimed at Oudh. These intrigues continued even when the allied British and Oudh troops had arrived in Rohilkhand, and the Nawāb of Oudh then made overtures for British help

in adding the province to his territories. Finally, Rahmat Khān agreed to carry out the treaty obligations which he had formerly contracted with Oudh, and the Marāthās were driven across the Ganges at Rāmghāt. This danger being removed, Rahmat Khān failed to pay the subsidy due from him to the Nawāb of Oudh. Later in the same year, Warren Hastings came to Benares to discuss affairs with the Nawāb, who strongly pressed for British help to crush the Rohillas. While the Council at Calcutta hesitated, the Nawāb made secret alliances with Zābita Khān and Muzaffar Jang of Farrukhābād, and persuaded the emperor to approve by promising to share any territory annexed. He then cleared the Marāthās out of the Doāb, and in 1774 obtained British troops to assist him against the Rohillas. The latter were met between Mīrānpur Katra in Shāhjahānpur and Fatehganj East (in Bareilly District) in April, 1774, and were defeated after a gallant resistance, Rahmat Khān being among the slain. This expedition formed the subject of one of the charges against Warren Hastings, which was directed to show that his object was merely to obtain money from the Nawāb Wazīr in return for help in acquiring new territory. Contemporary documents prove clearly the necessity for improving the western boundary of Oudh as a defence against the Marāthās, and the danger arising from this country being held by men whose treachery had been manifested again and again. Faiz-ullah Khān, the last remaining chief of the Rohillas, received what now forms the RĀMPUR STATE, and Zābita Khān lost his possessions east of the Ganges. In 1794 an insurrection broke out at Rāmpur, after the death of Faiz-ullah Khān. British troops were sent to quell it, and gained a victory at Fatehganj West. Seven years later, in 1801, Rohilkhand formed part of the Ceded Provinces made over to the British by the Nawāb of Oudh.

The total population of Rohilkhand is nearly 6·2 millions. The density approaches 500 persons per square mile, and in Bareilly District exceeds 600. More than 1¾ millions are Muhammadans, forming 28 per cent. of the total—a proportion double that found in the Provinces as a whole. Among Hindu castes may be mentioned the Jāts, who are not found east of Rohilkhand in considerable numbers; the Ahars, who are akin to the Ahīrs of other parts; and the Khāgis and Kisāns, excellent cultivators resembling the Lodhas of the Doāb. The Bishnoī sect has a larger number of adherents than elsewhere.

[Elliot, *History of India*, passim; Strachey, *Hastings and the Rohilla War* (1892).]

Rohisāla.—Petty State in KĀTHIĀWĀR, Bombay.

Rohri Subdivision.—Subdivision of Sukkur District, Sind, Bombay, composed of the ROHRI and GHOTKI *tālukas*.

Rohri Tāluka.—*Tāluka* of Sukkur District, Sind, Bombay, lying

between 27° 4′ and 27° 50′ N. and 68° 35′ and 69° 48′ E., with an area of 1,497 square miles. The population rose from 81,041 in 1891 to 85,089 in 1901. The *tāluka* contains one town, ROHRI (population, 9,537), its head-quarters; and 69 villages. The density, 58 persons per square mile, is much below the District average. The land revenue and cesses in 1903–4 amounted to 1·7 lakhs. The Eastern Nāra Canal runs south through the high-lying land, which has to be irrigated by lifts. Fair rice, *jowār*, and, near the Indus, wheat crops are grown. In the south, ranges of sandhills relieve the monotony of the country; but there the soil is barren and fit only for grazing.

Rohri Town.—Head-quarters of the *tāluka* of the same name in Sukkur District, Sind, Bombay, situated in 27° 41′ N. and 68° 56′ E., upon the left or eastern bank of the Indus, on a rocky eminence of limestone interspersed with flints. Population (1901), 9,537. The Hindus, who are mostly of the Baniyā caste, are engaged in trade, banking, and money-lending, while the Muhammadans are chiefly of the Bhuta, Kori, Patoli, Muhāno, Khati, Memon, and Shikāri tribes, or describe themselves as Shaikh and Saiyid.

Rohri is said to have been founded by Saiyid Rukn-ud-dīn Shāh in 1297. The rocky site terminates abruptly on the west in a precipice 40 feet high, rising from the bank of the river, which, during the inundation season, attains a height of about 16 feet above its lowest level. On the northern side is the mouth of the supply channel for the EASTERN NĀRA CANAL, 156 feet wide, which is provided with powerful sluice gates to regulate the supply of water as required. When seen from a little distance, Rohri has a pleasing appearance, the houses being lofty, frequently four and five storeys high, with flat roofs surrounded by balustrades; some are of burnt brick, erected many years ago by wealthy merchants belonging to the place. But the streets are in several parts very narrow, and the air is close and unwholesome. It has road communication with Mīrpur, Kandahār, and Sangrār, and the main trunk road from Hyderābād to Multān also passes through it. The town has derived a new importance as the station where the North-Western State Railway crosses the Indus, and as the junction of the Kotri-Rohri lines. It contains a Subordinate Judge's court, a dispensary, and four schools, of which three for boys have 754 pupils and one for girls has 80 pupils.

Rohri has a large number of Muhammadan places of worship. One, known as the Jāma Masjid, was built in 1564 by Fateh Khān, lieutenant of the emperor Akbar; it is a massive but gloomy pile of red brick, covered with three domes, and coated with glazed porcelain tiles. The other, the Idgāh Masjid, was erected in 1593 by Mīr Musan Shāh. The War Mubārak, a building about 25 feet square, situated to the north of the town, was erected about 1745 by Nūr Muhammad,

the reigning Kalhora prince, for the reception of a hair from the beard of Muhammad. This hair, to which miraculous properties are ascribed by the faithful, is set in amber, which again is enclosed in a gold case studded with rubies and emeralds, the gift of Mīr Alī Murād of Khairpur. The relic is exposed to view every March, when the hair is believed by the devotees to rise and fall, and also to change colour.

Rohri has been administered as a municipality since 1855, and the town has, in consequence, greatly improved as regards both health and appearance. The municipal income during the decade ending 1901 averaged Rs. 21,600. In 1903–4 it was Rs. 27,000. The trade is principally in grain, oil, *ghī*, salt, fuller's-earth, lime, and fruits. *Tasar* silk is manufactured. Opposite to Rohri on the Indus is the small island of Khwāja Khizr, containing the shrine of a saint who is revered alike by Muhammadans and Hindus.

Rohtak District.—District in the Delhi Division of the Punjab, lying between 28° 21′ and 29° 17′ N. and 76° 13′ and 76° 58′ E., on the borders of Rājputāna, in the high level plain that separates the waters of the Jumna and Sutlej, with an area of 1,797 square miles. The eastern part falls within the borders of the tract formerly known as Hariāna. In its midst lies part of the small State of Dujāna. It is bounded on the north by the Jīnd *nizāmat* of Jīnd State, and by Karnāl District; on the east by Delhi, and on the south-east by Gurgaon; on the south by Pataudi State and the Rewāri *tahsīl* of Gurgaon; on the south-west by territory belonging to the Nawāb of Dujāna; and on the west by the Dādri *nizāmat* of Jīnd and by Hissār District. Although there is no grand scenery in Rohtak, the canals with their belts of trees, the lines of sandhills, and in the south the torrents, the depressions which are flooded after heavy rain, and a few small rocky hills give the District more diversified features than are generally met with in the plains of the Punjab. The eastern border lies low on the level of the Jumna Canal and the Najafgarh swamp. A few miles west the surface rises gradually to a level plateau, which, speaking roughly, stretches as far as the town of Rohtak, and is enclosed by parallel rows of sandhills running north and south. Beyond the western line of sandhills the surface rises again till it ends on the Hissār border in a third high ridge. The eastern line runs, with here and there an interval, down the east side of the District, and rises to some height in the Jhajjar *tahsīl*. South-west of this ridge the country becomes more undulating, and the soil lighter. The south-eastern corner of the District is crossed by two small streams or torrents, the Sāhibi and Indori; these flow circuitously, throwing off a network of branches and collecting here and there after heavy rain in *jhīls* of considerable size, and finally fall into the Najafgarh swamp.

Physical aspects.

With the exception of a few small outliers of Alwar quartzite belonging to the Delhi system, there is nothing of geological interest in the District, which is almost entirely of alluvial formation.

The District forms an arm from the Upper Gangetic plain between the Central Punjab and the desert. Trees, except where naturalized or planted, are rare, but the *nimbar* (*Acacia leucophloea*) is a conspicuous exception. Mango groves are frequent in the north-east; and along canals and roadsides other sub-tropical species have been planted successfully. The *ber* (*Zizyphus Jujuba*) is common, and is often planted.

Game, including wild hog, antelope, 'ravine deer' (Indian gazelle), *nīlgai*, and hare, is plentiful. Peafowl, partridge, and quail are to be met with throughout the year; and during the cold season sand-grouse, wild geese, bustards, and flamingoes. Wolves are still common, and a stray leopard is occasionally killed. The villages by the canal are overrun by monkeys.

The climate is not inaptly described in the *Memoirs* of George Thomas as 'in general salubrious, though when the sandy and desert country lying to the westward becomes heated, it is inimical to a European constitution.' In April, May, and June the hot winds blow steadily all day from the west, bringing up constant sandstorms from the Rājputāna desert; at the close of the year frosts are common, and strong gales prevail in February and March.

The average rainfall varies from 19 inches at Jhajjar to 21 at Rohtak. Of the rainfall at the latter place, 18 inches fall in the summer months and 3 in the winter. The greatest fall recorded during the years 1885–1902 was 41 inches at Jhajjar in 1885–6, and the least 8 inches at Rohtak in 1901–2.

History.

The District belongs for the most part to the tract of HARIĀNA, and its early history will be found in the articles on that region and on the towns of ROHTAK, MAHAM, and JHAJJAR. It appears to have come at an early date under the control of the Delhi kings, and in 1355 Fīroz Shāh dug a canal from the Sutlej as far as Jhajjar. Under Akbar the present District lay within the *Sūbah* of Delhi and the *sarkārs* of Delhi and Hissār-Fīroza. In 1643 the Rohtak canal is said to have been begun by Nawāb Alī Khān, who attempted to divert water from the old canal of Fīroz Shāh. On the decay of the Delhi empire the District with the rest of Hariāna was granted to the minister Rukn-ud-dīn in 1718, and was in 1732 transferred by him to the Nawābs of Farrukhnagar in GURGAON. Faujdār Khān, Nawāb of Farrukhnagar, who seems to have succeeded to the territories of Hissār on the death of Shāhdād Khān in 1738, handed down to his son, Nawāb Kāmgār Khān, a dominion which embraced the present Districts of Hissār and Rohtak, besides part of Gurgaon

and a considerable tract subsequently annexed by the chiefs of Jīnd and Patiāla. Hissār and the north were during this time perpetually overrun by the Sikhs, in spite of the combined efforts of the Bhattis and the imperial forces; but Rohtak and Gurgaon appear to have remained with Kāmgār Khān till his death in 1760. His son, Mūsa Khān, was expelled from Farrukhnagar by Sūraj Mal, the Jāt ruler of Bharatpur; and the Jāts held Jhajjar, Badli, and Farrukhnagar till 1771. In that year Mūsa Khān recovered Farrukhnagar, but he never regained a footing in Rohtak District. In 1772 Najaf Khān came into power at Delhi, and till his death in 1782 some order was maintained. Bahādurgarh, granted in 1754 to Bahādur Khān, Baloch, was held by his son and grandson; Jhajjar was in the hands of Walter Reinhardt, the husband of Begam Sumrū of Sardhana; and Gohāna, Maham, Rohtak, and Kharkhauda were also held by nominees of Najaf Khān. The Marāthās returned in 1785, but could do little to repel the Sikh invasion; and from 1785 to 1803 the north of the District was occupied by the Rājā of Jīnd, while the south and west were precariously held by the Marāthās, who were defied by the strong Jāt villages and constantly attacked by the Sikhs. Meanwhile the military adventurer George Thomas had carved out a principality in Hariāna, which included Maham, Berī, and Jhajjar in the present District; his head-quarters were at Hānsi in the District of Hissār, and at Georgegarh near Jhajjar he had built a small outlying fort. In 1801, however, the Marāthās made common cause with the Sikhs and Rājputs against him, and under the French commander, Louis Bourquin, defeated him at Georgegarh, and succeeded in ousting him from his dominions. In 1803, by the conquests of Lord Lake, the whole country up to the Sutlej and the Siwāliks passed to the British Government.

Under Lord Lake's arrangements, the northern *parganas* of Rohtak were held by the Sikh chiefs of Jīnd and Kaithal, while the south was granted to the Nawāb of Jhajjar, the west to his brother, the Nawāb of Dādrī and Bahādurgarh, and the central tract to the Nawāb of Dujāna. The latter, however, was unable to maintain order in his portion of the territories thus assigned, and the frequent incursions of Sikh and Bhatti marauders compelled the dispatch of a British officer in 1810 to bring the region into better organization. The few *parganas* thus subjected to British rule formed the nucleus of the present District. Other fringes of territory escheated on the deaths of the Kaithal Rājā in 1818 and the chief of Jīnd in 1820. In the last-named year, Hissār and Sirsa were separated from Rohtak; and in 1824 the District was brought into nearly its present shape by the District of Pānīpat (now Karnāl) being made a separate charge.

Up to 1832 Rohtak was administered by a Political Agent under the Resident at Delhi; but it was then brought under the Regulations, and included in the North-Western Provinces. On the outbreak of the Mutiny in 1857, Rohtak was for a time completely lost to the British Government. The Muhammadan tribes, uniting with their brethren in Gurgaon and Hissār, began a general predatory movement under the Nawābs of Farrukhnagar, Jhajjar, and Bahādurgarh, and the Bhatti chieftains of Sirsa and Hissār. They attacked and plundered the civil station at Rohtak, destroying every record of administration. But before the fall of Delhi, a force of Punjab levies was brought across the Sutlej, and order was restored with little difficulty. The rebel Nawābs of Jhajjar and Bahādurgarh were captured and tried. The former was executed at Delhi, while his neighbour and relative escaped with a sentence of exile to Lahore. Their estates were confiscated, part of them being temporarily included in a new District of Jhajjar, while other portions were assigned to the Rājās of Jīnd, Patiāla, and Nābha as rewards for their services during the Mutiny. Rohtak District was transferred to the Punjab Government; and in 1860 Jhajjar was broken up, part of it being added to the territory of the loyal Rājās, and the remainder united with Rohtak.

There are no antiquities of any note, and the history of the old sites is unknown. Excavations at the Rohtak Khokra Kot would seem to show that three cities have been successively destroyed there; the well-known coins of Rājā Samanta Deva, who is supposed to have reigned over Kābul and the Punjab about A. D. 920, are found at Mohan Bāri. Jhajjar, Maham, and Gohāna possess some old tombs, but none is of any special architectural merit; the finest are at the first place. There is an old *baoli* or stepped well at Rohtak and another at Maham: the latter has been described by the author of *Pen and Pencil Sketches*, and must have been in much better repair in 1828 than it is now. The Gaokaran tank at Rohtak and the Būāwāla tank at Jhajjar are fine works, while the masonry tank built by the last Nawāb of Jhajjar at Chuchakwās is exceedingly handsome. The *asthal* or Jog monastery at Bohar is the only group of buildings of any architectural pretensions in the District; the Jhajjar palaces are merely large houses on the old Indian plan.

Population.

Rohtak contains 11 towns and 491 villages. Its population at each of the last four enumerations was: (1868) 531,118, (1881) 553,609, (1891) 590,475, and (1901) 630,672. It increased by nearly 7 per cent. during the last decade, the increase being greatest in the Sāmpla *tahsīl*, and least in Jhajjar. It is divided into four *tahsīls*—ROHTAK, JHAJJAR, SĀMPLA, and GOHĀNA—the head-quarters of each being at the place from which it is named. The chief towns are the municipalities of ROHTAK, the administrative

head-quarters of the District, JHAJJAR, BERI, BAHĀDURGARH, and GOHĀNA.

The following table shows the distribution of population in 1901:—

Tahsīl.	Area in square miles.	Number of		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Rohtak	592	5	102	197,727	334·0	+ 8·2	7,648
Sāmpla	409	2	122	162,423	397·1	+ 8·4	3,810
Jhajjar	466	1	189	123,227	264·4	+ 3·2	3,598
Gohāna	336	3	78	147,295	438·4	+ 6·3	2,011
District total	1,797	11	491	630,672	350·9	+ 6.8	17,067

NOTE.—The figures for the areas of *tahsīls* are taken from revenue returns. The total area is that given in the *Census Report*.

Hindus number 533,723, or 85 per cent. of the total, and Muhammadans 91,687. About 85 per cent. of the population live in villages, and the average population in each village is 1,096, the largest for any District in the Punjab. The language ordinarily spoken is Western Hindī.

The Jāts (217,000) comprise one-third of the population and own seven-tenths of the villages in the District. The great majority are Hindus, and the few Muhammadan Jāts are of a distinctly inferior type. The Hindu Rājputs (7,000) are a well-disposed, peaceful folk, much resembling the Jāts in their ways; the Ranghars or Muhammadan Rājputs (27,000), on the other hand, have been aptly described as good soldiers and indifferent cultivators, whose real *forte* lies in cattle-lifting. Many now enlist in Skinner's Horse and other cavalry regiments. The Ahīrs (17,000) are all Hindus and excellent cultivators. There are 9,000 Mālīs and 3,000 Gūjars. The Brāhmans (66,000) were originally settled by the Jāts when they founded their villages, and now they are generally found on Jāt estates. They are an inoffensive class, venerated but not respected. Of the commercial castes the Baniās (45,000) are the most important; and of the menials the Chamārs (leather-workers, 55,000), Chūhrās (scavengers, 23,000), Dhānaks (scavengers, 21,000), Jhīnwars (water-carriers, 12,000), Kumhārs (potters, 13,000), Lohārs (blacksmiths, 9,000), Nais (barbers, 13,000), Tarkhāns (carpenters, 13,000), and Telis (oil-workers, 7,000). There are 17,000 Fakīrs. About 60 per cent. of the population are agriculturists, and 21 per cent. industrial.

The Society for the Propagation of the Gospel has a branch at Rohtak town, and in 1901 the District contained 41 native Christians.

The general conditions with regard to agriculture in different parts

depend rather on irrigation than on differences of soil. Throughout the District the soil consists as a rule of a good light-coloured alluvial loam, while a lighter and sandier soil is found on elevations and clay soils in depressions of the land.

Agriculture.

All soils alike give excellent returns with sufficient rainfall, but, unless irrigated, fail entirely in times of drought, though the sandy soil can do with less rain than the clay or loam. The large unirrigated tracts are absolutely dependent on the autumn harvest and the monsoon rains. Roughly speaking, the part north of the railway may be classed as secure, that to the south as insecure, from famine. The whole of the soil contains salts, and saline efflorescence is not uncommon where the drainage lines have been obstructed.

The District is held almost entirely on the *pattīdāri* and *bhaiyāchārā* tenures, *zamīndāri* lands covering only about 8,000 acres, and lands leased from Government about 5,500 acres. The following table shows the main agricultural statistics in 1903-4, areas being in square miles:—

Tahsil.	Total.	Cultivated.	Irrigated.	Cultivable waste.
Rohtak	592	511	186	47
Sāmpla	409	346	122	38
Jhajjar	466	382	59	59
Gohāna	336	281	159	33
Total	1,803	1,520	526	177

Wheat is the chief crop of the spring harvest, occupying 103 square miles in 1903-4; grain occupied 141 and barley 47 square miles. In the autumn harvest the spiked and great millets (*bājra* and *jowār*) are the principal staples, occupying 338 and 335 square miles respectively; cotton occupied 65 square miles, sugar-cane 31, and pulses 138. Indigo is grown to a small extent, but only for seed.

The cultivated area increased from 1,406 square miles in 1879 to 1,520 square miles in 1903-4, in which year it amounted to 84 per cent. of the total area. The increase of cultivation during the twenty years ending 1901 is chiefly due to canal extensions, and it is doubtful whether further extension is possible. Fallows proper are not practised; the pressure of population and the division of property are perhaps too great to allow them. For rains cultivation the agriculturist generally sets aside over two-thirds of his lands in the autumn and rather less than one-third in the spring, and the land gets rest till the season for which it is kept comes round again; if there is heavy rain in the hot season, the whole area may be put under the autumn crop, and in that case no spring crop is taken at all. These arrangements are due to the nature of the seasons, rather than to any care for the soil. On

lands irrigated by wells and canals a crop is taken every harvest, as far as possible; the floods of the natural streams usually prevent any autumn crop, except sugar-cane, being grown on the lands affected by them. Rotation of crops is followed, but in a very imperfect way, and for the sake of the crop rather than the soil. Nothing worth mention appears to have been done in the way of improving the quality of the crops grown.

Except in the Jhajjar *tahsīl*, where there is a good deal of well-irrigation, advances under the Land Improvement Loans Act were not popular till recent years; nor are advances under the Agriculturists' Loans Act common, save in times of scarcity, as the people prefer to resort to the Baniās. During the five years ending September, 1904, a total of 5·3 lakhs was advanced, including 4·9 lakhs under the Agriculturists' Loans Act. Of this sum, 3 lakhs was lent in the famine year 1899–1900.

The bullocks and cows are of a very good breed, and particularly fine in size and shape. A touch of the Hānsi strain probably pervades them throughout. The bullocks of the villages round Beri and Georgegarh have a special reputation, which is said to be due to the fact that the Nawāb of Jhajjar kept some bulls of the Nagaur breed at Chuchakwās. This breed is small, hardy, active, and hard-working, but is said to have fallen off since the confiscation of the Jhajjar State. The *zamīndārs* make a practice of selling their bullocks after one crop has come up, and buying fresh ones for the next sowings, thereby avoiding the expense of their keep for four or five months. The extensive breaking-up of land which has taken place since 1840 has greatly restricted the grazing grounds of the villages; the present fodder-supply grown in the fields leaves but a small margin to provide against seasons of drought, and in many canal estates difficulty is already being experienced on this score. Few large stretches of village jungle are now to be found, and the policy of giving proprietary grants has reduced by more than half the area of the Jhajjar and Bahādurgarh reserves. A large cattle fair is held at Georgegarh. The horses of the District are of the ordinary mediocre type. Goats and sheep are owned as a rule by village menials. The District board maintains three horse and three donkey stallions.

Of the total area cultivated in 1903–4, 526 square miles, or nearly 36 per cent., were classed as irrigated. Of this area, 453 square miles were irrigated from canals and 72 from wells. The District had 2,903 masonry wells in use, all worked by bullocks on the rope-and-bucket system, besides 864 unbricked wells, water-lifts, and lever wells. Canal-irrigation more than trebled and well-irrigation more than doubled during the twenty years ending 1901. The former is derived entirely from the WESTERN JUMNA CANAL, the Būtāna branch of which (with

its chief distributary, the Bhiwāni branch) irrigates the Gohāna and Rohtak *tahsīls*, while various distributaries from the new Delhi branch supply Rohtak and Sāmpla. The area estimated as annually irrigable from the Western Jumna Canal is 278 square miles. There used to be a certain amount of irrigation from the Sāhibi and Indori streams, but this has been largely obstructed by dams erected in the territory of the Alwar State. Wells are chiefly found in the south of Jhajjar and in the flood-affected tracts of Sāmpla.

The District contains no forests, except 8 square miles of Government waste under the control of the Deputy-Commissioner; and, save along canals and watercourses and immediately round the villages, trees are painfully wanting. Reserved village jungles are, however, a feature of the District and are found in nearly every village.

The Sultānpur salt sources are situated in five villages in Gurgaon and in one in this District in the Jhajjar *tahsīl*. A large amount of *kankar* is found, some of which is particularly pure and adapted for the preparation of lime. The low hills in the south yield a limestone suitable for building purposes.

Trade and communications.

The chief manufactures are the pottery of Jhajjar; the saddlery and leather-work of Kalānaur; muslin turbans, interwoven with gold and silver thread, and a muslin known as *tanzeb*, produced at Rohtak; and the woollen blankets woven in all parts. Dyeing is a speciality of Jhajjar. The bullock-carts of the District are well and strongly made. Four cotton-ginning factories and one combined ginning and pressing factory have recently been opened at Rohtak town, which absorb a good deal of the raw cotton of the District. In 1904 they employed 279 hands. In other industries the native methods of production are adhered to; and, though in the towns foreign sugar and cloth are making way, native products hold their own in the villages. Owing to the opening of the factories and the Rohtak grain market, the demand for labour has considerably increased and wages have risen.

In ordinary seasons the District exports grain, the annual export of cereals being estimated by the Famine Commission of 1896–7 at 89,000 tons. The construction of the Southern Punjab Railway has greatly facilitated exports at all times, and imports in time of scarcity, the monthly average imported by this line during the famine year 1899 being no less than 3,400 tons. Commerce is also much helped by the Rohtak grain market, owing to its favourable position, its exemption from octroi, and the facilities given for grain storage.

The District is traversed by the Southern Punjab Railway; the Rewāri-Bhatinda branch of the Rājputāna-Mālwā Railway crosses the west side of the Jhajjar *tahsīl*; and the terminus of the branch from Garhi Harsāru to Farrukhnagar is about a mile from the border. The

District is also well provided with roads, the most important being the Delhi-Hissār, Rohtak-Bhiwāni, and Rohtak-Jhajjar roads, all of which are metalled. The total length of metalled roads is 79 miles, and of unmetalled roads 605 miles. Of these, 20 miles of metalled and 41 miles of unmetalled roads are under the Public Works department, and the rest under the District board.

Famine.

The first famine of which there is any trustworthy record was that of 1782-3, the terrible *chālīsa*. From this famine a very large number of villages in the District date their refoundation, in whole or in part. Droughts followed in 1802, 1812, 1817, 1833, and 1837. The famine of 1860-1 was the first in which relief was regularly organized by Government. Nearly 500,000 daily units were relieved by distribution of food and in other ways; about 400,000 were employed on relief works; Rs. 34,378 was spent on these objects, and Rs. 2,50,000 of land revenue was ultimately remitted. In 1868-9, 719,000 daily units received relief, 125,000 were employed at various times on relief works, nearly Rs. 1,35,000 was spent in alleviating the calamity, and more than Rs. 2,00,000 of revenue in all was remitted. The special feature of the relief in this famine was the amount raised in voluntary subscriptions by the people themselves, which was nearly Rs. 45,000. There is said to have been great loss of life, and nearly 90,000 head of cattle died. The next famine occurred in 1877-8. Highway robberies grew common, grain carts were plundered, and in the village of Badli a grain riot took place. No relief was, however, considered necessary, nor was the revenue demand suspended; 176,000 head of cattle disappeared, and it took the District many years to recover. Both harvests of 1895-6 were a failure, and in 1896-7 there was literally no crop in the rains-land villages. Relief operations commenced in November, 1896, and continued till the middle of July, 1897, at which time a daily average of 11,000 persons were on the relief works. Altogether, Rs. 96,300 was spent in alleviating distress, and suspensions of revenue amounted to 3·4 lakhs. The famine was, however, by no means severe; more than three-fourths of the people on relief works were menials, and large stores of fodder and grain remained in most of the villages. The famine of 1899-1900 was only surpassed in severity by the *chālīsa* famine above mentioned. The spread of irrigation had, however, largely increased the area protected from drought; and, while in 1896-7 the affected area was 1,467 square miles, in 1899-1900 this had shrunk to 1,234, in spite of the greater severity of the drought. The greatest daily average of persons relieved was in the week ending March 10, 1900, when 33,632, or 9 per cent. of the population affected, were in receipt of relief. The total cost of the famine was 7·5 lakhs. The total deaths from December, 1899, to October, 1900, were 25,006, giving a death-rate of 69 as compared with

the average rate of 37 per 1,000. Fever was responsible for 18,279 and cholera for 1,935 deaths. The losses of cattle amounted to 182,000.

Administration.

The District is in charge of a Deputy-Commissioner, assisted by three Assistant or Extra-Assistant Commissioners, of whom one is in charge of the District treasury. Each of the four *tahsīls* is under a *tahsīldār*, assisted by a *naib-tahsīldār*.

The Deputy-Commissioner, as District Magistrate, is responsible for criminal justice. Civil judicial work is under a District Judge; and both officers are supervised by the Divisional Judge of Delhi, who is also Sessions Judge. The District Judge has two Munsifs under him, one at head-quarters, the other at Jhajjar. There are also six honorary magistrates. The predominant form of crime is burglary.

The villages are of unusual size, averaging over 1,000 persons. They afford an excellent example of the *bhaiyāchārā* village of Northern India, a community of clansmen linked together, sometimes by descent from a common ancestor, sometimes by marriage ties, sometimes by a joint foundation of the village; with no community of property, but combining to manage the affairs of the village by means of a council of elders; holding the waste and grazing grounds, as a rule, in common; and maintaining, by a cess distributed on individuals, a common fund to which public receipts are brought and expenditure charged.

The early revenue history under British rule naturally divides itself into two parts—that of the older tracts which form most of the area included in the three northern *tahsīls*, and that of the confiscated estates which belonged before the Mutiny to the Nawābs of Jhajjar and Bahādurgarh. Thus the regular settlements made in 1838–40 included only half the present District. The earlier settlements made in the older part followed Regulation IX of 1805, and were for short terms. In Rohtak little heed was paid to the Regulation, which laid down that a moderate assessment was conducive equally to the true interests of Government and to the well-being of its subjects. The revenue in 1822 was already so heavy as to be nearly intolerable, while the unequal distribution of the demand was even worse than its burden. Nevertheless an increase of Rs. 2,000 was levied in 1825 and Rs. 4,000 shortly after. The last summary settlement made in 1835 enhanced the demand by Rs. 20,000. The regular settlement made between 1838 and 1840 increased the assessment by Rs. 14,000. This was never paid, and the revision, which was immediately ordered, reduced it by $1\frac{1}{4}$ lakhs, or 16 per cent. The progress of the District since this concession was made has been a continuing proof of its wisdom.

Bahādurgarh and Jhajjar were resumed after the Mutiny. The various summary settlements worked well on the whole, and a regular settlement was made between 1860 and 1863.

The settlement of the whole District was revised between 1873 and 1879. Rates on irrigated land varied from Rs. 2 to Rs. 2-12, and on unirrigated land from 5 annas to Rs. 1-9. Canal-irrigated land was, as usual, assessed at a 'dry' rate, plus owners' and occupiers' rates. The result of the new assessment was an increase of 9½ per cent. over the previous demand. The demand for 1903-4, including cesses, amounted to nearly 11 lakhs. The average size of a proprietary holding is 5 acres.

The collections of land revenue alone and of total revenue are shown below, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . . .	9,69	9,50	7,43	8,15
Total revenue . . .	11,09	11,38	10,37	11,34

The District contains five municipalities, ROHTAK, BERI, JHAJJAR, BAHĀDURGARH, and GOHĀNA; and ten 'notified areas,' of which the most important are MAHAM, KALĀNAUR, MUNDLĀNA, and BUTĀNA. Outside these, local affairs are managed by a District board, whose income amounted in 1903-4 to Rs. 1,24,000. The expenditure in the same year was Rs. 1,22,000, the principal item being public works.

The regular police force consists of 433 of all ranks, including 63 municipal police, under a Superintendent, who is usually assisted by 2 inspectors. The village watchmen number 702. The District has 10 police stations, 4 outposts, and 17 road-posts. Three trackers and three camel *sowārs* now form part of the ordinary force. The District jail at head-quarters has accommodation for 230 prisoners.

The standard of education is below the average, though some progress has been made. Rohtak stands twenty-sixth among the twenty-eight Districts of the Punjab in respect of the literacy of its population. In 1901 only 2·7 per cent. of the population (5 males and 0·1 females) could read and write. The number of pupils under instruction was 2,396 in 1880-1, 3,380 in 1890-1, 5,097 in 1900-1, and 5,824 in 1903-4. In the last year the District possessed 9 secondary and 65 primary (public) schools and 2 advanced and 42 elementary (private) schools, with 211 girls in the public and 8 in the private schools. The Anglo-vernacular school at Rohtak town with 262 pupils is the only high school. The other principal schools are two Anglo-vernacular middle schools supported by the municipalities of Jhajjar and Gohāna, and 6 vernacular middle schools. The total expenditure on education in 1903-4 was Rs. 44,000, chiefly derived from District funds; fees provided nearly a third, and municipal funds and Provincial grants between them a fifth, of the total expenditure.

Besides the Rohtak civil hospital, the District possesses five outlying dispensaries. These in 1904 treated a total of 59,714 out-patients and

1,016 in-patients, while 2,894 operations were performed. The income was Rs. 10,000, almost entirely derived from Local and municipal funds.

The number of successful vaccinations in 1903-4 was 14,406, representing 22.8 per 1,000 of population. The towns of Rohtak and Beri have adopted the Vaccination Act.

[D. C. J. Ibbetson, *District Gazetteer* (1883-4); H. C. Fanshawe, *Settlement Report* (1880).]

Rohtak Tahsīl.—*Tahsīl* of Rohtak District, Punjab, lying between 28° 38′ and 29° 6′ N. and 76° 13′ and 76° 45′ E., with an area of 592 square miles. The population in 1901 was 197,727, compared with 182,649 in 1891. It contains five towns—ROHTAK (population, 20,323), the head-quarters, BERI (9,723), KALĀNAUR (7,640), KAHNAUR (5,024), and MAHAM (7,824)—and 102 villages, including SĀNGHI (5,126). The land revenue and cesses in 1903-4 amounted to 2.9 lakhs. The plain is broken by a chain of sandhills on the east and by scattered sandy eminences elsewhere, and is partially irrigated by the Western Jumna Canal. Trees are scarce, except round the villages and along the older canal-branches.

Rohtak Town.—Head-quarters of the District and *tahsīl* of the same name, Punjab, situated in 28° 54′ N. and 76° 35′ E., on the Southern Punjab Railway, 44 miles north-west of Delhi; distant by rail from Calcutta 1,000 miles, from Bombay 1,026, and from Karāchi 863. Population (1901), 20,323, including 10,404 Hindus and 9,916 Muhammadans. It is plausibly identified with the Rauhitaka or Rauhita of the *Rājatarangini* and of Albirūnī; but tradition avers that its ancient name was Rohtāsgarh or 'the fort of Rohtās,' a Ponwār Rājā, and points to the mound called the Khokra Kot as the site of the old town. It is also said that Muhammad of Ghor destroyed the town soon after it had been rebuilt by Prithwī Rāj in 1160, but it is not mentioned by the earlier Muhammadan historians. A colony of Shaikhs from Yemen are said to have built a fort; and the Afghāns of Birahma, an ancient site close by, also settled in the town, which became the capital of a fief of the Delhi kingdom. Kai Khusrū, the grandson and heir of Balban, was enticed from Multān by Kaikubād and put to death here about 1286; and in 1410 Khizr Khān, the Saiyid, besieged Idrīs Khān in Rohtak fort, and took it after a six months' siege. After the decline of the Mughal power Rohtak, situated on the border line between the Sikh and Marāthā powers, passed through many vicissitudes, falling into the hands of one chieftain after another. It became the head-quarters of Rohtak District in 1824, and was plundered in the Mutiny of 1857.

The municipality was created in 1867. The income during the ten years ending 1902-3 averaged Rs. 24,900, and the expenditure

Rs. 24,400. In 1903-4 the income was Rs. 25,000, chiefly derived from octroi; and the expenditure was Rs. 23,600. The town is an important trade centre; and four factories for ginning cotton and one for ginning and pressing have recently been established. The number of factory hands in 1904 was 279. Muslin turbans interwoven with gold and silver thread and a form of muslin known as *tanzeb* are produced. The Anglo-vernacular high school is managed by the Educational department.

Rohtang.—Pass in the Kulū subdivision of Kāngra District, Punjab, situated in 32° 22′ N. and 77° 17′ E., across the Himālayan range which divides the Kulū valley from Lāhul. The pass leads from Koksar in Lāhul to Rālla in Kothi Manāli of Kulū. The elevation is only 13,326 feet, a remarkably low level considering that the sides rise to 15,000 and 16,000 feet, while within 12 miles are peaks over 20,000 feet in height. The high road to Leh and Yārkand from Kulū and Kāngra goes over this pass, which is practicable for laden mules and ponies. The pass is dangerous, and generally impassable between November and the end of March or even later. Through it the monsoon rains reach the Chandra valley, and the Beās rises on its southern slope.

Rohtās.—Fortress in the District and *tahsīl* of Jhelum, Punjab, situated in 32° 55′ N. and 73° 48′ E., 10 miles north-west of Jhelum town, in the gorge where the Kahān torrent breaks through the low eastern spur of the Tilla range. The fortress was built by the emperor Sher Shāh Sūri, after his expulsion of Humāyūn in 1542, to hold in check the Gakhars, who were allies of the exiled emperor. The Gakhars endeavoured to prevent its construction, and labour was obtained with such difficulty that the cost exceeded 40 lakhs in modern currency. The circumference is about 2½ miles, and the walls are 30 feet thick and from 30 to 50 feet high. There are 68 towers and 12 gateways, of which the most imposing is the Sohal Gate, a fine specimen of the Pathān style, over 70 feet in height, with exquisite balconies on the outer walls. The fortress was named after the fort of Rohtās in Bengal, the scene of a victory of Sher Shāh. The northern wall is now a ruin, and within the fortifications lies the small but flourishing village of Rohtās.

Rohtāsgarh.—Hill fort in the Sasarām subdivision of Shāhābād District, Bengal, situated in 24° 37′ N. and 83° 55′ E., about 30 miles south of Sasarām town, overlooking the junction of the Koel with the Son river. Population (1901), 1,899. It derives its name from the young prince Rohitāswa, son of Haris Chandra, king of the Solar race. Little or nothing is known concerning the persons who held the fort until 1100, when it is supposed to have belonged to Pratāp Dhawala, father of the last Hindu king. Sher Shāh captured Rohtāsgarh in

1539, and immediately began to strengthen the fortifications; but the work had not progressed very far, when he selected a more favourable site in the neighbourhood at the place still known as Shergarh. Mān Singh, Akbar's Hindu general, on being appointed viceroy of Bengal and Bihār, selected Rohtāsgarh as his stronghold; and, according to two inscriptions in Sanskrit and Persian, erected many of the buildings now existing. When he died, the fortress was attached to the office of Wazīr of the emperor, by whom the governors were appointed. The governor of the place in 1622–4 protected Shāh Jahān's family when that prince was in rebellion against his father. Rohtāsgarh was surrendered to the British soon after the battle of Buxar in 1764.

The remains of the fortress now occupy a part of the table-land, about 4 miles from east to west, and 5 miles from north to south, with a circumference of nearly 28 miles. On the south-east corner of the plateau is an old temple called Rohtāsan, where an image of Rohitāswa was worshipped until destroyed by Aurangzeb. It is situated on a steep peak, and is approached by a great stone staircase arranged in groups of steps with successive landings. Close by is the temple of Haris Chandra, a graceful building consisting of a small pillared hall covered by five domes. Within the gate at Rāj Ghāt there must have been a very considerable building, which is thought to have formed the private residence of the commandant. Other remains, some of which date back to the time of Sher Shāh, are scattered over the plateau. The most interesting of these is the palace or Mahālsarai, which is attributed to Mān Singh. It is irregularly built without any architectural pretensions, the most striking building being the main gateway, a massive structure consisting of a large Gothic arch, with the figure of an elephant on each side. The palace is, however, of great interest as being the only specimen of Mughal civil architecture in Bengal, and as giving an insight into the conditions of military life under that empire.

Rojhan.—Village in the Rājanpur *tahsīl* of Dera Ghāzi Khān District, Punjab, situated in 28° 41′ N. and 69° 58′ E., on the west bank of the Indus, below Dera Ghāzi Khān town. Population (1901), 8,177. It is the capital of the Mazāri Baloch, having been founded by Bahrām Khān, *tumandār* or chief of that tribe, about 1825. The village contains a fine courthouse, built by the late chief for his use as honorary magistrate, and a mosque and tomb erected in memory of his father and nephew. Woollen rugs and nose-bags for horses are manufactured. A vernacular middle school is maintained by the District board.

Ron Tāluka.—North-eastern *tāluka* of Dhārwār District, Bombay, lying between 15° 30′ and 15° 50′ N. and 75° 29′ and 76° 2′ E., with an area of 432 square miles. There are two towns, RON (popula-

tion, 7,298), the head-quarters, and GAJENDRAGARH (8,853); and 84 villages, including NAREGAL (8,327) and SAVDI (5,202). The population in 1901 was 103,298, compared with 92,370 in 1891. The density, 239 persons per square mile, is slightly below the District average. The demand for land revenue in 1903-4 was 1·8 lakhs, and for cesses Rs. 14,000. Ron *tāluka* is a stretch of rich black soil, without a hill or upland. The people are skilful, hard-working husbandmen, and well-to-do. The water-supply is poor, and the annual rainfall averages only about 23 inches.

Ron Town.—Head-quarters of the *tāluka* of the same name in Dhārwār District, Bombay, situated in 15° 42′ N. and 75° 44′ E., 55 miles north-east of Dhārwār town. Population (1901), 7,298. Ron has seven black stone temples, in one of which is an inscription dated 1180. The town contains two schools, one of which is for girls.

Roorkee Tahsīl.—Eastern *tahsīl* of Sahāranpur District, United Provinces, lying between 29° 38′ and 30° 8′ N. and 77° 43′ and 78° 12′ E., with an area of 796 square miles. It is bounded on the north by the Siwāliks, on the east by the Ganges, and on the south by Muzaffarnagar District. It comprises the *parganas* of Roorkee, Jwālāpur, Manglaur, and Bhagwānpur. The population fell from 290,498 in 1891 to 286,903 in 1901. There are 426 villages and six towns, HARDWĀR UNION (population, 25,597), ROORKEE (17,197), the *tahsīl* head-quarters, and MANGLAUR (10,763) being the largest. In 1903-4 the demand for land revenue was Rs. 3,86,000, and for cesses Rs. 62,000. In the same year the area under cultivation was 369 square miles, of which 38 were irrigated. Besides the forests on the slopes and at the foot of the Siwāliks, the *tahsīl* contains 20 square miles of grazing reserve south of Roorkee, known as the Pathrī forest, and a large area of low-lying land in the Ganges *khādar*. The head-works of the UPPER GANGES CANAL are near Hardwār, but the area irrigated in this *tahsīl* is small. The average rainfall is about 43 inches, being the highest in the District. Successful drainage operations have been carried out near Pathrī. The *tahsīl* forms a regular subdivision of the District, with a Civilian Joint-Magistrate and a Deputy-Collector recruited in India, who reside at Roorkee.

Roorkee Town (*Rūrkī*).—Head-quarters of the *tahsīl* of the same name, and cantonment, in Sahāranpur District, United Provinces, situated in 29° 51′ N. and 77° 53′ E., on the main line of the Oudh and Rohilkhand Railway, and connected by road with Sahāranpur and Hardwār. The Upper Ganges Canal passes between the native town and the cantonment. Population (1901), 17,197, including 9,256 Hindus and 6,197 Muhammadans.

Roorkee was the head-quarters of a *mahāl* or *pargana* mentioned in the *Ain-i-Akbarī*; but about 1840, when the Ganges Canal works

commenced, it was a mere mud-built village on the banks of the Solāni. It is now a fair-sized town, with broad metalled roadways meeting at right angles, and lined with excellent shops. It is also provided with good saucer drains, which are flushed with water pumped from the canal. A short distance above the town the Ganges Canal is carried over the wide bed of the Solāni by a magnificent brick aqueduct. Roorkee first became important as the head-quarters of the canal workshops and iron foundry, which were established in 1845–6, and extended and improved in 1850. For thirty years the workshops were conducted rather on the footing of a private business than as a Government concern. In 1886 they were brought under the ordinary rules for Government manufacturing departments. The annual out-turn is valued at about 2 to 3 lakhs, and 80 workmen were employed in 1903. Roorkee is the head-quarters of the Bengal Sappers and Miners, who have large workshops, employing 135 men in 1903. The most important institution is, however, the Thomason Engineering College, called after its founder, who was Lieutenant-Governor from 1843 to 1853. This institution had its origin in a class started in 1845 to train native youths in engineering, to assist in the important public works then beginning. The decision arrived at in 1847 to carry out the Ganges Canal project increased the necessity for a well-trained staff of engineers, and the college was opened in 1848. In 1851 there were 50 students, and 42 had entered the service. Up to 1875 each student received a stipend; but from that year the number of scholarships and the number of guaranteed appointments were limited, though education remained practically free. Since 1896 all students except soldiers and industrial apprentices have paid fees, but the applications for admission far exceed the accommodation. In the same year the methods of instruction were greatly developed, and the college was practically rebuilt. There are now chemical, physical, electrical, and mechanical laboratories, and technical workshops fitted with the latest tools and machinery. The press is supplied with power machines, and turns out all varieties of work besides ordinary printing. There are also mechanical and industrial classes. The total number of students in 1903–4 was 369; and in 1903 the press employed 125 workmen, and the workshops 52, besides 77 students. Roorkee is also the head-quarters of the Society for the Propagation of the Gospel and of the American Methodist Missions in this District. The Joint-Magistrate and the Deputy-Collector posted to the subdivision, and an Executive Engineer of the Upper Ganges Canal, reside here.

The municipality was created in 1868. The income and expenditure from 1892 to 1901 averaged Rs. 17,000 and Rs. 16,000. In 1903–4 the income was Rs. 27,000, chiefly from octroi (Rs. 16,000); and the expenditure was Rs. 28,000.

Besides the Bengal Sappers and Miners, two heavy batteries of artillery are ordinarily stationed here. The cantonment income and expenditure are about Rs. 6,000 annually, and the population of the cantonment in 1901 was 2,951.

Roserā.—Town in Darbhangā District, Bengal. *See* RUSERĀ.

Roshnābād.—Estate in Tippera District, Eastern Bengal and Assam. *See* CHĀKLA ROSHNĀBĀD.

Rotās.—Place of archaeological interest in Jhelum District, Punjab. *See* ROHTĀS.

Ruby Mines District.—District in the Mandalay Division of Upper Burma, lying between 22° 42′ and 24° 1′ N. and 95° 58′ and 96° 43′ E., with an area of 1,914[1] square miles. The Shan State of Möngmit (Momeik) lies to the east, and is for the present administered as a subdivision of the District. The combined area is bounded on the north by Kathā and Bhamo Districts; on the east by the North Hsenwi State; on the south by the Tawngpeng and Hsīpaw States, and Mandalay District; and on the west by Shwebo and Kathā Districts. With the exception of a thin strip of land about 20 miles long by 2 miles wide, half-way down its western border, the whole area lies east of the Irrawaddy. The District proper consists of two tracts, essentially different in configuration: a long plain running north and south bordering the river and extending back some dozen miles from its banks; and in the south a mass of rugged mountains, stretching eastwards from the level, in the centre of which lies the Mogok plateau. North of this mass the ground rises rapidly from the plains to a ridge bordering the District proper on the east and separating it from the basin of the Shweli, in which the whole of the Möngmit State is comprised. The highest peak in the District is Taungme, 7 miles north-west of Mogok and 7,555 feet above the sea; and elsewhere are several imposing hills, conspicuous among them being the Shweudaung (6,231 feet), a little to the west of the first-named eminence. The Irrawaddy washes nearly the whole of the western border of the District from north to south, the upper part of its course being wide and dotted with islands, while the lower part, known as the first defile, lies confined between steep rocky banks which give a succession of picturesque views to the traveller on the river. The watercourses running across the plains into the Irrawaddy are for the most part short and of little importance. After the Irrawaddy the river most worthy of note is the Shweli (or Nam Mao), a considerable stream, which enters the Möngmit State from China near the important trade centre of Namhkam, and runs in a rocky defile in a south-westerly direction through Möngmit as far as the village of Myitson. Here it abruptly takes a northerly course till

Physical aspects.

[1] Excluding Möngmit State.

it is close to the northern boundary of the District, when it bends sharply south-west again to meet the Irrawaddy a few miles above Tigyaing in Kathā District. The valley below Myitson is wide and to a certain extent cultivated, in marked contrast to the country on the upper course. At Myitson the Shweli is joined on the left by a stream formed by the junction of the Kin, which rises near Shwenyaungbin in the Mogok subdivision, and the Nam Mit (Meik), watering the valley in which the capital of the Möngmit State is situated. Another stream deserving of mention is the Moybe or Nam Pe, which rises in the Tawngpeng State, and, after skirting the southern boundary of Möngmit and of the District proper, turns south to separate the Hsīpaw State from Mandalay District, finishing its course as the Madaya *chaung*.

The whole of the Ruby Mines District is occupied by crystalline rocks, mainly gneisses, and pyroxene granulites, traversed by grains of tourmaline-bearing granite. Between Thabeikkyin and Mogok bands of crystalline limestone are interbedded with the gneiss, and from these the rubies of the District are derived. The stones were formerly obtained from the limestone itself, but the principal sources now are the clays and other débris filling up fissures and caves in the limestone and the alluvial gravels and clays of the valleys of Mogok and Kyatpyin. Besides rubies, sapphires and spinels with tourmaline are found in the alluvium. Graphite occurs in small flakes disseminated through the limestone, and in a few localities is concentrated in pockets of considerable size along the junction of the limestones with the gneiss.

The vegetation is much the same as is described in the article on the NORTHERN SHAN STATES. In the evergreen tracts it is very luxuriant.

Tigers and leopards are common and are very destructive to cattle. Bears, hog, bison, *sāmbar*, and *gyi* (barking-deer) are all numerous. Elephants are found in places, especially in Möngmit territory, and here and there rhinoceros have been met with.

The Mogok plateau is situated at a high altitude and possesses a temperate climate well suited to Europeans, the maximum and minimum temperatures at Mogok averaging 70° and 37° in December and 80° and 59° in May. Bernardmyo, a small station 10 miles to the north-west of Mogok, and somewhat higher, enjoys a climate colder and more bracing. It used to be a military sanitarium, but the troops have now been withdrawn from it. The climate of the river-side townships resembles that of Mandalay, but the country farther from the river at the foot of the hills is very malarious. The Möngmit valley, too, is unhealthy, but, unlike that of Mogok, is excessively hot. The rainfall varies considerably in the different subdivisions. During the

three years ending 1903 it averaged 44 inches at Thabeikkyin, 43 inches at Möngmit, and 98 inches at Mogok.

History.

The Ruby Mines District was constituted in 1886 on the annexation of Upper Burma, but was practically left to itself, so far as any attempt at formal administration was concerned, until the end of the year, when a column under General Stewart marched up to Mogok. Some opposition was encountered in the neighbourhood of Taungme, but it was slight and easily overcome, and the new District remained quiet for about two years after its first occupation. Then troubles fell on it from outside, the result of the vigorous operations in the neighbouring plains, which drove the insurgents into the hills. Towards the end of the two years it was reported that the capital of Möngmit was being threatened by a large gathering under Saw Yan Naing, a rebel leader who had established his headquarters at Manpon, a village situated three days' march north-east of Möngmit. As a result of these reports a small detachment of troops was posted at Möngmit; and after an unfortunate encounter in which, owing to insufficient information, a handful of troops suffered a reverse, a considerable body of dacoits which had advanced on Möngmit was attacked and severely defeated. The disturbances naturally affected the rest of the District. Twinnge, an important village of 300 houses on the bank of the Irrawaddy, was taken and burnt by a band under one Nga Maung. Another man of the same name and other minor dacoits from the same part threatened the District, and a feeling of insecurity prevailed. On the Tawngpeng border also Nga Zeya, a noted desperado, who had been driven out of Mandalay, was reported to have a considerable following. Dacoities were numerous, and the main road from Mogok to Thabeikkyin became very unsafe, especially during the rains, when it was haunted by the two Nga Maungs and other outlaws. The military garrison was therefore strengthened; an attack was made on Manpon and Saw Yan Naing's gathering was dispersed; at the same time steps were taken to strike at the root of the evil by improving the administration of the neighbouring States of Mönglong and Tawngpeng, and Gurkha troops were substituted for the existing garrison. The net result of all these measures was that the disturbances were reduced to sporadic dacoities of a petty nature, chiefly committed on traders on the road between Mogok and Thabeikkyin, and these were finally checked by the maintenance of patrols on the road and the establishment of military police posts in the more important wayside villages. The District is now perfectly quiet.

The oldest pagoda of which anything is known in the neighbourhood of Mogok is the Shwekugyi, built in Dhammathawka Min's time. It is said to have been erected on the precise spot where the elephant which brought some bones and hair and a tooth of Gautama from

India knelt down with its precious burden. At Kyatpyin there is a pagoda on the summit of a hill known as Pingutaung, remarkable chiefly for the amount of labour that must have been involved in the carriage of the materials to such a height. Tagaung, a village on the Irrawaddy in the west of the District, is the site of the earliest of the known capitals of Burma. Traces of the old city walls are still to be seen; and among the ruins of the pagodas terra-cotta tablets of considerable antiquity, known generally as Tagaung bricks, have been found in the past. Of the Tagaung pagodas, the four of most note are the Shwezigon, the Shwezedi, the Shwebontha, and the Shwegugyi. The most frequented shrine in the District is the Shwemyindin near Möngmit, which is the scene of a large gathering of many nationalities at the full moon of Tabaung (March) in every year.

Population.

The population of the District, excluding the Möngmit State, was 34,062 in 1891 and 42,986 in 1901, while that of the Möngmit State in the latter year was 44,708. The distribution of the population of the combined areas in 1901 is set forth below:—

Township.	Area in square miles.	Number of		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Mogok	610	1	112	24,590	40	+ 31	5,462
Thabeikkyin	688	...	74	9,787	14	+ 20	3,206
Tagaung	616	...	71	8,609	14	+ 21	2,441
Möngmit	2,802	...	236	22,581	8	...	3,291
Kodaung	760	...	303	22,127	29	...	158
District total	5,476	1	796	87,694	16	...	14,558

MOGOK is the only urban area of any size. There has been considerable immigration from the Shan States, and to a less extent from the adjoining Districts of Mandalay and Shwebo. Buddhism is the religion of 79 per cent. of the population and Animism that of most of the remainder. Less than half the people speak Burmese and Shan. Kachin and Palaung are both strongly represented.

Burmans numbered 35,200 in 1901. They form almost the entire population of the river-side (Thabeikkyin and Tagaung) townships, and about one-third of that of the Mogok township. There are 10,400 Burmese-speakers, that is Burmans and mixed Burmans and Shans, in the Möngmit State, where they inhabit the larger villages in the valleys of the Shweli and its tributaries. Shans numbered 16,800 in 1901, being widely distributed over the Mogok township and the entire Möngmit State except in the Kodaung tract, where they have to a large extent been ousted by Kachins. The PALAUNGS numbered 16,400.

They share the Kodaung township with the Kachins, and are found in considerable numbers in the Möngmit and Mogok townships. The KACHINS, numbering 13,300, form half the population of the Kodaung tract, and have spread into the Möngmit township. There were 2,800 natives of India in 1901 (of whom only 370 resided in the Möngmit State). About one-fourth are Musalmāns and the rest Hindus, and two-thirds of the total reside in Mogok and its suburbs. The Census of 1901 showed that 50,900 persons, or 58 per cent. of the total population, were directly dependent upon agriculture, a low proportion for Burma. Excluding the Mogok township, the percentage becomes 72 as compared with the Provincial average of 66. Of the agricultural population, 28,700 persons were returned as dependent upon *taungya* (shifting) cultivation. About 10 per cent. of the total were dependent upon industries connected with precious stones. No Christian missions are maintained.

Agriculture.

Owing to the hilly nature of the District the area of *taungya* cultivation is proportionately large, but rice is also grown on the low-lying levels. The soil in the valleys is usually rich and the rainfall is everywhere sufficient, eked out with the help of some small irrigation works, for the needs of the crops. Rice in the plains is as a rule first raised in nurseries, but the *mayin* (hot-season) crop is sown broadcast in the tanks as they dry up. Both the plough (*te*) and the harrow (*tun*) are employed, and for ploughing purposes the buffalo is in most general use. The advantages of manure are not fully understood (except by the Chinese gardeners near Mogok), though the stubble is burnt for fertilizing purposes on the fields. An experimental orchard was started some little time ago at Bernardmyo, but was destroyed by fire before any good result had been attained. The garden was finally given up when it was proved that the rains broke before the fruit could ripen.

The cultivated area of the District is very small. The main agricultural statistics for 1903-4 are shown in the following table, in square miles :—

Township.	Total area.	Cultivated.	Irrigated.	Forests.
Mogok	610	5	3	5,399
Thabeikkyin	688	5	1	
Tagaung	616	3		
Möngmit	2,802	...	...	
Kodaung	760	...	...	
Total	5,476	13	4	5,399

Rice is the staple crop, the great bulk of the out-turn being harvested during the cold season. *Mayin* rice is grown chiefly in Möngmit and Thabeikkyin. The 'wet' rice land in the District proper in 1903-4

comprised about 7,000 acres. A very small area (400 acres) is under sesamum, and a still smaller area under maize. All kinds of vegetables are extensively grown; and, in particular, the Lisaw colony near Bernardmyo cultivates potatoes, which do very well on the higher lands.

Experiments have lately been made in coffee-growing on the Mogok hills. The soil is said to be suitable, but the industry is impossible at present owing to the high rates that have to be paid for labour. The jungles in the valleys are being gradually cleared, and cultivation is slowly extending over the face of the country; but the husbandmen are lamentably conservative and no improvements in the quality of seed can be recorded. Experiments were made at one time with Havana tobacco, but they ended in complete failure owing to the inclement weather. A similar venture was recently started with Virginia tobacco seed. No advances have been made under the Land Improvement Loans Act, but advantage is taken of the Agriculturists' Loans Act, a sum of more than Rs. 20,000 having been advanced under it during the four years ending 1903-4. The loans are utilized chiefly for the purchase of buffaloes for ploughing.

Little attention is paid to the breeding of live-stock, and nature is allowed free play. The ponies are as a rule under-sized, good beasts being hard to get. A little attention paid to breeding would be of great advantage and help to rescue this useful type of animal from further deterioration, if not from total extinction. There are no recognized grazing grounds, except those reserved by the Forest department, but uncultivated land and jungle are abundant.

The District contains no Government irrigation works, but nearly 2,300 acres of land are irrigated. The fisheries are confined to the Thabeikkyin subdivision. The number of recognized fishing areas is 16, and these are divided between the Tagaung and Thabeikkyin townships, 11 belonging to the former and 5 to the latter. The most important is the Ywahmwe fishery, which brought in Rs. 4,500 in 1903-4. The total revenue from this source is about Rs. 20,000.

Forests.

The forests are greatly affected and modified by the physical geography, which must be briefly described to explain the character of its vegetation. The dry tract of Burma extends from Shwebo into the Ruby Mines District in a band of about 10 to 12 miles broad from Thabeikkyin and Tagaung. This arid stretch is bounded by laterite hills, which in their turn give place to the high range of the Irrawaddy-Shweli watershed, with a large spur running eastwards to Mogok, and boasting of peaks of 6,000 feet and higher. On the eastern side of this watershed the ground slopes gently to an elevated plateau of laterite drained by sandy streams, which usually disappear into plains of grass as the Shweli is approached. On

the farther side of that stream, i. e. on its east bank, perennial streams drain a hilly country of metamorphic rocks.

On the dry tract the vegetation partakes of the scrub-like character of the forest of the dry zone, the only bamboo being the *myin* (*Dendrocalamus strictus*), while the trees, except near the river and *jhīls*, are for the most part stunted cutch (*Acacia Catechu*). This is the only tree of any economic value. It grows sparsely now, but must have been plentiful in the past. Wherever the dry plain land rises up to meet the laterite hills there are stretches of *indaing*, or forests in which the *in* (*Dipterocarpus tuberculatus*) is the predominant tree. Where the laterite is modified with clay the forest is mixed with bamboo (*D. strictus*), and the characteristic tree is the *than* (*Terminalia Oliveri*). As the watershed of the Irrawaddy is reached, the laterite gives way to metamorphic rocks, and the forest changes to the mixed deciduous type. This consists of teak, *pyingado*, and deciduous trees mixed with bamboos. As the elevation rises, the high evergreen forest of Burma is encountered, with various species of oaks and chestnuts, eugenias, *Dipterocarpus laevis*, and *Fici* forming the upper stratum, below which are found palms, screw-pines, canes, and bamboos, while the lowest stratum is composed of shrubs and ferns making a dense mass of vegetation. As the elevation increases to 6,000 feet, wild tea (*Camellia theifera*) and cinnamon are found, while on the topmost levels there is no vegetation except short grass which forms open plains, while the ridges are covered with pines (*Pinus Khasya*). This is the natural sequence where not modified by the action of man; where, however, *taungya*-cutting has been prevalent, the evergreen forests turn into huge savannahs of coarse grass, 8 to 10 feet high in the rains, which are burnt annually in the hot season. On the laterite hills and plateaux to the east of the Irrawaddy-Shweli watershed, the forests consist of pure *indaing* jungle, which in Möngmit covers about 1,800 square miles. On the banks of the streams, where the soil is good alluvial loam, pure teak forests of fine quality are met with, or *padauk* mixed with bamboo. West of the Shweli the ordinary deciduous mixed forests of Burma are the rule, till, as the elevation increases, they are displaced by evergreen vegetation.

Owing to the extent of the natural teak forests, very little systematic planting has been undertaken, a small *taungya* of 25 acres being the only area under plantations in the District. An attempt is being made to reafforest the grass savannahs caused by *taungya*-cutting in the hills, by putting down pine seedlings. About 30 acres were so treated; but the pines were burnt and destroyed the first year, while in the second year the growth, though protected, was poor. In 1903–4 the area of the Forest division was 5,399 square miles, of which 994 square miles were composed of 'reserved' and 4,405 of unclassed forests. The

receipts of the Forest department in 1903-4 amounted to nearly $4\frac{3}{4}$ lakhs.

Minerals.

The main industry is the extraction of rubies, sapphires, and spinels, all three of which are found together in the same gravel-beds. The Burma Ruby Mines Company, Limited, works on a large scale at Mogok and elsewhere with modern machinery under a special licence; and a large but fluctuating number of natives take out ordinary licences, which do not permit the use of machinery. The company's workings take the form of large open excavations. At present these vary from 20 to 50 feet in depth and are kept dry by powerful pumps; the ruby earth (locally known as *byon*) is loaded by coolies into trucks and hauled up inclines to the washing machines, which are merely rotary cylinders discharging into large pans, where by the action of water and revolving teeth the mud is separated from the gravel. The latter is then treated in pulsating machines which still further reduce the bulk, and finally the residue is picked over by hand. For the year ending 1904 the following was the result of the company's operations: rubies, 199,238 carats, valued at 13 lakhs; sapphires, 11,955 carats, valued at Rs. 8,700; and spinels, 16,020 carats, valued at Rs. 26,300. Of this total, stones worth 8·8 lakhs were sent to London for disposal there, and 4·5 lakhs' worth was sold locally.

The staff in 1904 consisted of the following: 44 Europeans and Eurasians, earning from Rs. 150 to Rs. 600 a month each; 254 Burmans, at R. 1 each a day; 1,073 Chinese, Shans, and Maingthas, at R. 1 a day; and 248 natives of India, at from Rs. 20 to Rs. 100 a month, making a total of 1,619 hands. The company derives its power from an electric installation driven by water, which generates about 450 horse-power. During the dry season, steam is used to a limited extent, the fuel being cut locally.

The number of native miners varies very much, but the average for nine years ending 1904 was 1,220, paying to the company Rs. 60 a month per set of three men working each mine. It is quite impossible to estimate their gain; but, as the working expenses are at least Rs. 20 a month in addition to the sum paid to the company, the industry must produce Rs. 32,500 a month before any profit is made. The four methods of native mining adopted are known as *hmyaw* or hill-side workings, *lu* or cave workings, *twinlon* or pit workings, and *se* or damming a stream and diving for the gravel behind the dam or weir. Most of the produce is sold locally, though fine stones frequently go direct to London. In addition to the mining described above, women are allowed to wash with small baskets in all perennial streams licence free. Their individual earnings are probably not often more than a few annas a day, but occasionally they pick up a valuable stone, and on the whole

their takings must be not inconsiderable. They sell their finds, usually at the end of each day's work, to small ruby pedlars.

Tourmaline occurs in the District, and is mined on an insignificant scale near Nyaungdauk, on the road to Mönglong, and at Möngmit. The Burma Ruby Mines Company did a little work a few years ago on an outcrop of gold-bearing quartz about 5 miles from Thabeikkyin; but the assays were not encouraging, and the place was abandoned. Plumbago is found on the surface at many places, notably near Wapyudaung. The company sank several shafts at Onzon, but the vein ended and further mining was discontinued. Various other persons have from time to time obtained prospecting licences and started a certain amount of work, but the results seem in all cases to have been unsatisfactory. Mica is distributed over apparently the whole District, but does not appear to be present in paying quantities. Limestone exists everywhere, but is burnt only where it is wanted for pagodas and brick buildings, and in Mogok by the Ruby Mines Company for their foundations, &c.

Trade and communications.

The only local industry that has attained to any dimensions is mining for and trading in precious stones. A certain amount of stone-cutting, polishing, and setting is carried on in Mogok town. The work is, however, primitive; and most of the stones are sold in the rough, the best being sent to London and Paris, while the inferior qualities go to Mandalay, Calcutta, Bombay, and Madras. On the Shweli and Irrawaddy rivers the principal non-agricultural occupations are fishing, bamboo-cutting, and timber-trading. Rafts of bamboos, teak, and other kinds of timber are made up on the banks and floated down to Mandalay. Maingthas come into the District in large numbers every year for the dry season, chiefly from the Shan-Chinese States of Möngla, Möngda, and Mengtat. They are the iron-workers of the District and are welcome visitors, for, besides being the most expert blacksmiths in an otherwise non-industrial community, they are esteemed the best working coolies in Burma.

Trade conditions vary in the different parts, but as a general rule the people depend on the outside world for most articles of consumption. Rice, sufficient for the requirements of the District outside the Mogok township, is grown within its limits in the Thabeikkyin and Möngmit subdivisions, but is also imported from the Shan States of Tawngpeng and Mönglong for Mogok and its environs. Other articles of import are opium brought from China via Lashio and Mönglong, pickled tea from Tawngpeng and Hsīpaw, cotton goods and articles of clothing. Weaving is carried on only in outlying villages, and the out-turn of the looms is intended solely for home consumption, while in the larger towns and villages foreign piece-goods are preferred as being both of better quality and cheaper than the local product. The same is true of

articles of hardware. In return for these imports Mogok offers precious stones, and Möngmit and Thabeikkyin rice, timber, and fish. The chief centre of trade is Mogok; and in the bazar, which is held every fifth day, there are to be seen representatives of a large and varied number of nationalities.

The main trade routes to Mogok are the Thabeikkyin cart-road, over which all goods from India and Europe travel; the Mönglong road, which unites Mogok with Hsīpaw and connects with the Lashio railway; and the Möngmit road over which the rice from Möngmit and Tawngpeng enters Mogok. Generally it may be said that trade is in the hands of the Chinese and Indian merchants, the Burmans and Shans confining themselves to trading in rice and precious stones. The chiet means of transport are the mule and pack-bullock, the Chinese wooden saddle being used. A good deal of transport is done by *pakondans*—men carrying a bamboo pole on their shoulders, from each end of which hangs a pack. The time for these hucksters is the rainy season, when the hill roads become very trying for animal transport.

There are no railways in the District. The most important road is that from Thabeikkyin to Mogok (61 miles), metalled throughout. This highway and the partially metalled mule-track from Mogok to Konwet, half-way to Möngmit, are maintained from Provincial funds. The District fund is responsible for the upkeep of two partly metalled roads from Mogok, one to Mönglong (17 miles), metalled for a portion of its length, and one to Bernardmyo ($10\frac{1}{2}$ miles); also of two unmetalled cart-roads, one from Twinnge to Thitkwebin (12 miles), and one from Wapyudaung to Chaunggyi (13 miles); and of three short cuts on the Mogok-Thabeikkyin road. The Möngmit State maintains an unmetalled cart-road from Thitkwebin to Möngmit ($35\frac{1}{2}$ miles), a continuation of the road from Twinnge, and mule-tracks from Möngmit to Konwet (10 miles), and from Möngmit to Namhkam through Molo. The Irrawaddy is navigable by the largest river steamers at all seasons of the year, and the Irrawaddy Flotilla boats between Mandalay and Bhamo touch at Thabeikkyin twice weekly up and down. In addition, a steamer plies twice a week between Mandalay and Thabeikkyin. The Shweli is navigable by river boats up to the cataracts by which the river descends from Namhkam to Molo, and is nowhere fordable.

Administration.

The District proper is divided into two subdivisions: the subdivision and township of MOGOK, and the Thabeikkyin subdivision, composed of the THABEIKKYIN and TAGAUNG townships. The MÖNGMIT STATE, which is administered temporarily as a third subdivision of the District, is divided into the MÖNGMIT (Momeik) and KODAUNG townships. The subdivisions are in charge of the executive officers, as also is the Tagaung township, but the town-

ships of Thabeikkyin and Mogok are directly under the subdivisional officers concerned. The Kodaung township is administered by a civil officer, generally a member of the Provincial Service, who is under the direct control of the Deputy-Commissioner, and exercises certain powers under the Kachin Hill Tribes Regulation, 1895. The District forms a subdivision of the Mandalay Public Works division (which includes the greater part of Mandalay District), and is nearly conterminous with the Ruby Mines Forest division. There are 261 village headmen, of whom 11 are subordinate headmen, receiving no commission. A number of them exercise special civil and criminal powers.

The civil courts are presided over by the executive officers, the treasury officer at Mogok acting as additional judge of the Mogok township court. As the District is situated on the borders of China and the Shan States, and peopled to a large extent by non-Burmans, a large traffic in smuggled opium is carried on, and offences against the Opium Act are consequently common. Similarly, breaches of the Upper Burma Ruby Regulation, a special local law applicable to the stone tract, are numerous.

The District is made up of various old Burmese jurisdictions, where in former days a variety of revenue methods were in force. What is now the Mogok subdivision consisted of three administrative areas known as *sos*, which sometimes were independent jurisdictions, each under its own *sothugyi*, and sometimes formed the combined charge of a Burmese official known as the *thonsowun*. This area was treated practically as a royal demesne, and was to all intents and purposes farmed out to the *wun*. The rent, which in theory was fixed but in practice was fluctuating, was paid in kind; and to obtain the requisite supply of precious stones the *wun* levied a stone cess or *kyaukdaing* on those who mined and traded in rubies, and a *mindaing* or royal cess on those who did not. The *kyaukdaing* was paid in rubies; and the stones, duly diminished by what the *wun* thought might with safety be appropriated, were remitted to the court at Mandalay. The *mindaing* was designed to stimulate the production of stones; it was collected in cash, and was employed in making advances to the miners and in paying the *wun's* subordinates. There was no land tax in the District under Burmese rule, though a nominal assessment of one-third of the gross produce on rice land in the Mogok valley was used to gauge the capacity of the cultivators to pay the *mindaing*. After the annexation of Upper Burma *thathameda* was at first the only impost, and land revenue was not assessed till after it had become difficult to prove that the land (which in reality was nearly all state) had not in part been acquired by private individuals.

Revenue rates have varied since land revenue was first demanded. At present state land in the Mogok subdivision pays 15 per cent., and

non-state land 10 per cent., of its gross out-turn, and Rs. 2–8 per household is paid on *taungya* cultivation. The same rates prevail in the Thabeikkyin subdivision, as well as in Möngmit (where in king Mindon's time land revenue was assessed at $1\frac{1}{2}$ per cent. of the gross out-turn on all lands); but in Möngmit a sort of permanent settlement called *yaza* has been effected in the neighbourhood of the head-quarters, under which the cultivators pay a fixed sum on each plot of land, irrespective of the out-turn. The District has not yet been cadastrally surveyed or settled. The Ruby Mines Company pays an annual rent of 2 lakhs of rupees, plus 30 per cent. of the excess whereby the fees received from holders of ordinary licences exceed 2 lakhs, and 30 per cent. on the net profits of the company. In 1903–4 the receipts of the Government from the company amounted to Rs. 2,11,500. The total collections of *thathameda* (at Rs. 10 per household) amounted in 1903–4 to Rs. 7,300, those of land revenue to Rs. 17,000, and those of fishery revenue to Rs. 24,000, the aggregate revenue from all sources for the District proper (excluding Möngmit) being Rs. 3,90,000.

The District fund had in 1903–4 an income of Rs. 49,300, the chief item of expenditure being public works (Rs. 34,800). No municipalities have been constituted.

The District Superintendent is the immediate head of the civil police. An Assistant Superintendent is in charge of the police in the Möngmit State. The sanctioned strength of the force is 3 inspectors, 5 head constables, 9 sergeants, and 173 constables. Two Kachin sergeants and 5 constables are also sanctioned for the Kodaung tract, and are directly under the civil officer, Kodaung. They form no part of the regular District police force. There are six police stations in the District proper, and three in the Möngmit State. The Ruby Mines Company has three inspectors in its employ invested with police powers, whose duty it is to apprehend and prosecute persons engaged in illicit mining, or otherwise contravening the provisions of the Ruby Regulation. The Ruby Mines military police battalion has its head-quarters at Mogok. It is under a commandant and an assistant commandant, and consists of 24 native officers, 79 non-commissioned officers, and 801 men, stationed at the several township head-quarters, and on the main road from Mogok to the Irrawaddy.

A jail is under construction at Mogok. At present convicted prisoners are kept in the lock-up at that station, and, if sentenced to more than two months' imprisonment, are sent under military police escort to Mandalay. The lock-up has accommodation for about 40 prisoners.

Education is in a decidedly backward state. There are no Government schools, and none of the private institutions is at all advanced. In 1901 the proportion of persons returned as able to read and write

was 25·9 per cent. (40 males and 4·7 females), but the standard of literacy must have been very low. In the Möngmit State (with a large non-Buddhist population) the corresponding figure was only 7·7 per cent. In 1904 the District contained 24 primary (public) and 107 elementary (private) schools, with a roll of 1,409 pupils (including 400 girls), as compared with 1,273 in 1901. In 1903–4 the expenditure on education was Rs. 1,600, met wholly from Government.

The only hospital is at Mogok, which has accommodation for 36 in-patients. In 1903 the number of cases treated was 13,863, including 494 in-patients, and 206 operations were performed. The income was made up of Rs. 4,000 from Provincial funds and Rs. 600 from subscriptions. Another hospital is about to be built at Thabeikkyin.

Vaccination is nowhere compulsory within the limits of the District. In 1903–4 the number of persons successfully vaccinated was 2,451, representing 28 per 1,000 of population.

Rūdarpur.—Town in the Hātā *tahsīl* of Gorakhpur District, United Provinces, situated in 26° 45′ N. and 83° 33′ E., 27 miles south-east of Gorakhpur city. Population (1901), 8,860. Near the town are some ancient remains, and an old name of the place is said to have been Hansakshetra. The ruins cover a large area, but have not been regularly excavated. A celebrated temple of Dūdhnāth is also situated close by. Rūdarpur is administered under Act XX of 1856, with an income of about Rs. 1,100. The diversion of commerce to the railway has injured its trade; but grain is exported and saltpetre is manufactured. The town contains a dispensary, and a school with 139 pupils.

Rudaulī.—Town in the Rāmsanehīghāt *tahsīl* of Bāra Bankī District, United Provinces, situated in 26° 45′ N. and 81° 45′ E., on the Oudh and Rohilkhand Railway and close to the Lucknow-Fyzābād road. Population (1901), 11,708. The foundation of the town is ascribed to a Bhar chief, named Rudra Mal. It contains the shrines of two noted Muhammadan saints: Shāh Ahmad, who was entombed alive for six months; and Zohra Bībī, who recovered her sight miraculously by a visit to the shrine of Saiyid Sālār at Bahraich. Large fairs are held at each of these. Rudaulī is administered under Act XX of 1856, with an income of about Rs. 3,200. There is a flourishing trade in grain, and cotton cloth is manufactured. The town contains a dispensary, and a school with 106 pupils.

Rudraprayāg.—Temple in Garhwāl District, United Provinces, situated in 30° 18′ and 79° N., at the confluence of the Mandākinī and Alaknandā, 2,300 feet above sea-level. It is one of the five sacred confluences (*prayāg*) in the upper course of the Ganges head-waters, and is visited by pilgrims on their way to Kedārnāth.

Rumpa.—Hill tract in Godāvari District, Madras. *See* RAMPA.

Rungāmāti.—Outpost of the Mughals in Goālpāra District, Eastern Bengal and Assam. *See* RĀNGĀMĀTI.

Rungpore.—District, subdivision, and town in Eastern Bengal and Assam. *See* RANGPUR.

Rupāl.—Petty State in MAHĪ KĀNTHA, Bombay.

Rūpar Subdivision.—Subdivision of Ambāla District, Punjab, comprising the *tahsīls* of RŪPAR and KHARAR. Kharar contains the cantonment and sanitarium of KASAULI and the 'notified area' of KĀLKA.

Rūpar Tahsīl.—Northern *tahsīl* of Ambāla District, Punjab, lying at the foot of the Himālayas, between 30° 45′ and 31° 13′ N. and 76° 19′ and 76° 44′ E., with an area of 290 square miles. It is bounded on the north by the Sutlej river, and forms part of the Rūpar subdivision. On the north-east the *tahsīl* runs up into the Lower Siwāliks, and along the Sutlej is a narrow strip of low-lying country. The rest consists of a loam plateau rich in wells, and intersected by mountain torrent beds. The head-works of the Sirhind Canal are at Rūpar. The population in 1901 was 139,327, compared with 146,816 in 1891. The head-quarters are at the town of RŪPAR (population, 8,888). It also contains 358 villages. The land revenue and cesses in 1903–4 amounted to 2·8 lakhs.

Rūpar Town.—Head-quarters of the subdivision and *tahsīl* of the same name in Ambāla District, Punjab, situated in 30° 58′ N. and 76° 32′ E., at the point where the Sutlej issues from the hills. Population (1901), 8,888. It is a town of considerable antiquity, originally called Rūpnagar after its founder, Rājā Rūp Chand. It was occupied about 1763 by Hari Singh, a Sikh chieftain, who seized upon a wide tract south of the Sutlej, stretching along the foot of the Himālayas. In 1792 he divided his estates between his two sons, Charrat Singh and Dewa Singh, the former of whom obtained Rūpar. The estates were confiscated in 1846, in consequence of the part taken by the family during the Sikh War of the preceding year. The head-works of the Sirhind Canal are situated here, and the town is an important mart of exchange between the hills and the plains. Salt is imported from the Khewra mines and re-exported to the hills, in return for iron, ginger, potatoes, turmeric, opium, and *charas*. Cotton twill (*sūsī*) is largely manufactured, and the smiths of Rūpar have a reputation for locks and other small articles of iron. Rūpar was the scene of the celebrated meeting between Lord William Bentinck and Ranjīt Singh in 1831. There are two important religious fairs, one Hindu, one Muhammadan. The municipality was created in 1867. The income during the ten years ending 1902–3 averaged Rs. 12,100, and the expenditure Rs. 11,400. In 1903–4 the income was Rs. 14,500, chiefly from octroi; and the expenditure was Rs. 16,900. There are three Anglo-vernacular middle schools and a dispensary.

Rūpbās.—Head-quarters of a *tahsīl* of the same name in the State of Bharatpur, Rājputāna, situated in 26° 59′ N. and 77° 39′ E., about 19 miles south-by-south-east of Bharatpur city. Population (1901), 2,981. The town contains a post office, a vernacular school attended by about 100 boys, and a dispensary. The place is mentioned by Jahāngīr as having formerly been the *jāgīr* of Rūp and subsequently given to Amān-ullah, son of Mahābat Khān, and called after him Amānābād. It was one of Jahāngīr's regular hunting-grounds. In the vicinity of Rūpbās are some enormous stone obelisks and images; the oldest is a sleeping figure of Baldeo cut in the rock, 22½ feet long, with a seven serpent-hooded canopy and an inscription dated A. D. 1609. About 8 miles to the south-west are the famous sandstone quarries of Bansi Pahārpur, which have supplied material for the beautiful palaces at Dīg and for many of the buildings at Agra and Fatehpur Sīkri.

[*Archaeological Survey of Northern India*, vol. xx.]

Rūpnagar.—Head-quarters of a district of the same name in the north of the State of Kishangarh, Rājputāna, situated in 26° 48′ N. and 74° 52′ E., about 16 miles due north of Kishangarh town. Population (1901), 3,676. The town, which takes its name from its founder, Rūp Singh (chief of Kishangarh 1644–58), is walled and possesses a fort. The place was once a big market for salt and sugar, but the railway has diverted this trade elsewhere. Rūpnagar contains a British post office; a small jail, with accommodation for 12 prisoners; a vernacular middle and an elementary school, attended, respectively, by about 70 boys and 20 girls; and a dispensary. A municipal committee attends to the lighting and conservancy of the town. Sursara, 5 miles to the south, was the original seat of the hero Tejājī, venerated by the Jāts; and a cattle fair is held there yearly in August.

Rūpnārāyan.—River of Bengal, known in the early part of its course as the Dhalkisor. It rises in the Tilābani hill in Mānbhūm District, and follows a tortuous south-easterly course through the south-west corner of Burdwān District. The Silai joins it on the border of Midnapore District; and from this point (22° 40′ N. and 87° 47′ E.) it takes the name of Rūpnārāyan, and after a farther course of 49 miles, during which it separates Midnapore District from Hooghly and Howrah, it joins the HOOGHLY RIVER in 22° 13′ N. and 88° 3′ E. The Rūpnārāyan proper is tidal throughout its entire course, and a heavy bore ascends as high as the mouth of the GAIGHĀTA BAKSHI KHĀL. The Rūpnārāyan originally formed a western exit of the Ganges. It now enters the Hooghly at right angles opposite Hooghly Point, and when in flood it banks up the stream of the Hooghly and forces that river to deposit its silt upon the dangerous shoal known as the JAMES AND MARY. It thus constitutes the principal danger to the navigation of the Hooghly river. The river is protected on its

right bank, within Midnapore District, by a continuous embankment 29½ miles in length; and it is also embanked all along its left bank from its junction with the Gaighāta Bakshi Khāl to its union with the Hooghly river. The bordering lands are more or less inundated by the spring-tides in April and May, which leave behind destructive impregnations of salt, rendering them unfit for cultivation unless small defensive works are thrown up round the fields every year to keep the water out. Grass and *hoglā* reeds (*Typha elephantina*) are the ordinary produce, except in years when the rains set in and close early, when a late rice crop can be planted in September. The Rūpnārāyan is navigable throughout the year by native boats of 4 tons burden as high as Ghātāl village in Midnapore District. It is not fordable at any season of the year within the limits of Hooghly and Howrah Districts. It has been spanned by a fine bridge at Kolāghāt, where it is crossed by the Bengal-Nāgpur Railway.

Rūrkī.—Subdivision, *tahsīl*, and town in Sahāranpur District, United Provinces. *See* ROORKEE.

Ruserā.—Town in the head-quarters subdivision of Darbhangā District, Bengal, situated in 25° 45′ N. and 86° 2′ E., on the east bank of the Little Gandak, just below the former confluence of that river with the Bāghmati. Population (1901), 10,245. Owing to its position on the Little Gandak, Ruserā was at one time the largest market in the south of the District; but though it is still an important bazar, it has somewhat lost its importance since the opening of the railway. Ruserā was constituted a municipality in 1869. The income during the decade ending 1901–2 averaged Rs. 5,700, and the expenditure Rs. 4,900. In 1903–4 the income, mainly derived from a tax on persons (or property tax), was Rs. 6,600; and the expenditure was Rs. 6,000.

Rushikulya.—River in Ganjām District, Madras. It rises in the Rushimālo hill (from which it takes its name), near Dāringabādi in the Chinnakimedi Māliahs, in 19° 55′ N. and 84° 8′ E., and runs south-east to Aska and thence south-east and east into the Bay of Bengal at Ganjām town, in 19° 22′ N. and 85° 4′ E. Its length is about 115 miles, and the towns on its banks are Surada, Aska, Purushottapur, and Ganjām. It is spanned at Aska by a fine masonry bridge of nineteen arches. It is joined by the Pathama near Surada, by the Bhāguvā in Dhārākota estate, by the Mahānadī at Aska, and by the Godāhaddo in the Berhampur *tāluk*. The river dries up in the hot season.

At Aska and at Pratāpuram near Purushottapur, where its channel turns northwards for a short distance, a large festival is held every year in February or March, when thousands of people bathe in its waters.

The river is utilized for irrigation by means of a series of works

known collectively as the Rushikulya Project. This was begun in 1884, has already cost 48 lakhs, and is still being extended. It renders the water of the Rushikulya and its tributary, the Mahānadī, available for cultivation in the Berhampur *tāluk* and one corner of Goomsur. The main dam across the Rushikulya is at Jannimilli, between Surada and Aska, above the junction with the Mahānadī. Its catchment at this point is 650 square miles. To intercept flood-water which would otherwise run to waste, a tributary has been dammed higher up and a reservoir formed at Surada, from which a supply can be let down to the Jannimilli dam. The Mahānadī has been treated in the same way, there being a dam at Mādhavaborida, 6 miles below Russellkonda. Its catchment at this point is 870 square miles. A subsidiary reservoir, fed by dams across two tributaries of the Mahānadī, has been formed just above Russellkonda. From the Mādhavaborida dam a channel 20 miles long, called the Mahānadī canal, runs through a corner of the Goomsur *tāluk* (irrigating 6,500 acres) into the Rushikulya above the Jannimilli dam, and thus still further increases the supply available there. From the Jannimilli dam the main Rushikulya canal, 54 miles long, runs south through several *zamīndāris* and on into the Berhampur *tāluk*. It has sixteen distributaries, with an aggregate length of 136 miles. The cultivable area commanded by the project is 142,000 acres (of which 106,000 are in the Berhampur *tāluk*), and the extent at present irrigable is 102,000 acres. In 1903–4, 90,000 acres of first crop were watered by it and 1,000 acres of second crop. There is seldom sufficient water for much second crop. The gross and net revenue earned in 1903–4 was Rs. 97,000 and Rs. 35,000. The project is technically classed as protective and not productive (it is the only work so classed in the Presidency), and is not remunerative, the profits on the capital outlay being at present only 0·71 per cent. Neither the river nor the canals are used for navigation. It is under contemplation to construct another reservoir at Pattupūr, by damming the Godāhaddo river, to supplement the supply available.

Russellkonda ('Russell's hill').—Town in the Goomsur *tāluk* of Ganjām District, Madras, situated in 19° 57′ N. and 84° 37′ E., about 50 miles north-west of Berhampur on the Loharakandi river. It is called after Mr. George Russell, who was appointed Special Commissioner in 1835 to put down the disturbances in the country round about. Population (1901), 3,493. It is the head-quarters of the subdivision and *tāluk* of Goomsur, and of the Special Assistant Agent, Balligudā subdivision. It contains a training school chiefly intended for teachers for the schools in the Agency tract, a tannery which in 1903 employed an average of 45 persons daily and turned out 50 tons of leather valued at about Rs. 49,000, and a jail in charge of the

Special Assistant Agent. This last was built for convicts belonging to the hill country, to save them from the severe fever they become liable to if sent down to the coast. It contains accommodation for 158 prisoners, who are employed in stone-quarrying, oil-pressing, weaving, rice-pounding, and making elephant harness. Russellkonda was at one time a military cantonment, but the troops were withdrawn in December, 1863.

Rustāk.—Town in the Badakhshān province of Afghānistān, situated in 37° 8′ N. and 69° 47′ E., on the left bank of the Rustāk river; 3,920 feet above the sea. Lying in a rich and fertile tract, and within easy reach of the Oxus, it is the most important commercial centre in Badakhshān, with 2,000 houses and 185 shops. With the exception of a few Hindu shopkeepers, the inhabitants are all Tājiks and speak Persian. Bokhāra silk is worn by the upper classes, and cotton clothes by the rest: some of the material for the latter is imported from the Russian markets and some from Peshāwar, while a not inconsiderable quantity is woven from locally grown cotton. Barley, rice, wheat, and other grains are produced, but not sufficiently for export; and fruit trees abound. Arms, and practically all articles made of iron, are manufactured locally. Bājauri traders used to visit Rustāk every year in large numbers, bringing merchandise from India through Chitrāl, and returning with horses. Owing to the prohibition of the export of horses from Afghānistān, this trade has, however, fallen off in recent years. The town contains schools for religious instruction, supported chiefly by public charity. The fort, situated to the north of the town, is a square of about 100 yards: the Rustāk Mīrs still reside there, but they no longer have any power, the government being entirely carried on by Afghān officials.

Rutlam.—State and town in Central India. *See* RATLĀM.

Sabalgarh.—Head-quarters of the Sheopur district of Gwalior State, Central India, situated in 26° 15′ N. and 77° 25′ E., at the terminus of the Gwalior-Sabalgarh branch of the Gwalior Light Railway. Population (1901), 6,039. Sabalgarh was founded by a Gūjar named Sabala; but the present fort was built by Rājā Gopāl Singh of Karauli, and till 1795, when it was taken by Khande Rao Inglia, it remained in the hands of the Karauli chiefs. In 1809, owing to the contumacious conduct of its governor, the fort was taken by Jean Baptiste Filose on behalf of Sindhia. The town contains no buildings of any size; but the district offices, a hospital, a school, a State post office, a custom-house, a resthouse, and a jail are situated in it. Sabalgarh is noted for its wood-carving and lacquer and metal-work. Close to the town is a tract of forest carefully protected as a preserve for big game.

Sabargam.—One of the principal peaks in the Singālilā spur of

the Himālayas in the head-quarters subdivision of Darjeeling District, Bengal, situated on the western frontier of the District in 27° 10′ N. and 88° 1′ E. The height above sea-level is 11,636 feet.

Sābarmatī (Sanskrit, *Svabhravati*).—River of Western India, flowing from the hills of Mewār south-westwards into the Gulf of Cambay, with a course of about 200 miles and a drainage area of about 9,500 square miles. The name is given to the combined streams of the Sābar, which runs through the Idar State, and of the Hāthmati, which passes the town of Ahmadnagar (Mahī Kāntha Agency). In the upper part of their course both rivers have high rocky banks, but below their confluence the bed of the Sābarmatī becomes broad and sandy. The united river thence flows past Sādra and Ahmadābād, and receives on the left bank, at Vantha, about 30 miles below the latter city, the waters of the Vātrak, which, during its course of 150 miles, is fed by a number of smaller streams that bring down the drainage of the Mahī Kāntha hills. The Sābarmatī receives no notable tributaries on the right bank. There are several holy places on its banks in and about Ahmadābād city, and the confluence at Vantha attracts many pilgrims to an annual fair in the month of Kārtik (November). Luxuriant crops are grown on the silt deposited by the river, and many wells are sunk in its bed in the fair season. The lands of Parāntīj are watered from the Hāthmati by means of an embankment above Ahmadnagar.

Sabāthu (*Subāthu*).—Hill cantonment in Simla District, Punjab, situated in 30° 59′ N. and 77° 0′ E., on a table-land at the extremity of the Simla range, overlooking the Ghambar river. It lies above the old road from Kālka to Simla, 9 miles from Kasauli and 23 from Simla station. Sabāthu has been held as a military post since the close of the Gurkha War in 1816, and a detachment of a British infantry regiment is usually stationed here. There is a small fort above the parade-ground, formerly of military importance, now used as a store-room. The American Presbyterian Mission maintains a school, and an asylum for lepers is supported by voluntary contributions. Elevation above sea-level, 4,500 feet. Population (1901), 2,177.

Sābhār.—Village and ruins in the head-quarters subdivision of Dacca District, Eastern Bengal and Assam, situated in 23° 51′ N. and 90° 15′ E., on the east bank of the Bansi river. Population (1901), 1,904. It was formerly the capital of a Bhuiyā or chief named Haris Chandra, but the only vestiges of it are ruins of buildings and old tanks and the remains of what must have been a tower. Sābhār is now an important mart.

Sachīn State.—State in the Surat Political Agency, Bombay. The villages constituting the State are much scattered, some of them being surrounded by British territory, and others by portions of the

Baroda State. Sachīn may, however, roughly speaking, be said to lie within the limits of the British District of Surat.

The Nawāb of Sachīn is by descent a Habshi or Abyssinian. When his ancestors first came to India is doubtful; but they were long known on the western coast as the Sīdīs of Danda-Rājpuri and Janjīra. They were also the admirals of the fleets of the kings of Ahmadnagar and Bijāpur, in the Deccan, while those dynasties lasted, and subsequently of the Mughal emperors, being appointed to that office by Aurangzeb about 1660, with an annual assignment of 3 lakhs on the Surat revenues for their maintenance. On the decline of the Mughal empire the Sīdīs became notorious pirates, plundering the ships of all nations, except the British, whose friendship they appear to have early cultivated. The branch of the family who had their head-quarters at the island of Janjīra remained chiefs of that place during the wars between Sivajī and the Mughals, and between the Marāthās and the British Government. During these wars different members of the family were alternately supported by either party as best suited its own interest. Towards the end of the eighteenth century Bālu Miā Sīdī, the heir to the throne of Janjīra and to the other possessions of the Sīdīs, was expelled from his dominions by a younger branch of the family. He appealed for aid to the Marāthās and the British. The Peshwā being desirous of obtaining Janjīra, an arrangement was come to in 1791 by which Bālu Miā ceded to the Peshwā Janjīra in return for Sachīn. Bālu Miā duly took possession of his new State of Sachīn; but when the Peshwā claimed Janjīra, the Sīdīs who held it refused to give it up, and succeeded in maintaining their independence. Sachīn remained in the hands of Bālu Miā and his descendants; while Janjīra is still held by the younger branch of the family who had ousted Bālu Miā, the Peshwā never having been able to establish his influence. Janjīra is reckoned as a maiden fortress to this day. A full account of the transactions between the British, the Peshwā, and the rival rulers of Janjīra and Sachīn, will be found in Aitchison's *Treaties*, vol. iv, pp. 311 et seq. (1876 ed.).

The chief is entitled to a salute of 9 guns. The family holds a title guaranteeing any succession legitimate according to Muhammadan law, and succession follows the rule of primogeniture.

The State contains 21 villages, and occupies an area of about 42 square miles, with a population in 1901 of 20,530. Hindus number 17,581; Muhammadans, 2,604; and Pārsīs, 238.

The soil varies from black to light. The arable land in the State covers 34 square miles, of which 33 square miles were cultivated in 1903-4. The usual cereals are grown, as well as cotton and sugarcane. Irrigation is carried on from tanks and wells. There are no forests in the State. Cotton yarn and coarse cloth are manufactured.

A breakwater at Dumas, and a causeway at Bhīmpur, by keeping back sea-water, have contributed towards the reclamation of a considerable area of hitherto uncultivable salt land.

The chief has power to try his own subjects for capital offences. At present the State is in charge of an Administrator, who also disposes of civil suits. There are two criminal courts, and the police force numbers 60. The State contains a jail. A survey and land settlement were completed in 1883. On the whole, the rates fixed were higher than in neighbouring British villages, but much lower than the ryots had hitherto paid. The gross revenue in 1903-4 amounted to over 2 lakhs, of which 1·1 lakhs was derived from land revenue and Rs. 36,000 from excise. The expenditure amounted to $1\frac{1}{2}$ lakhs. In 1903-4 the State contained 19 schools with 1,501 pupils, and two dispensaries treating annually 7,000 persons.

Sachīn Village.—Chief place of the State of the same name in the Surat Agency, Bombay, situated in 21° 4′ N. and 72° 59′ E., 9 miles south of Surat city. Population (1901), 997. Good roads connect it with Surat, with Lachpur on the Mindhola, the former residence of the Nawābs, and with Sachīn station on the Bombay, Baroda, and Central India Railway. The village contains the palace of the Nawāb, a small fort, a courthouse, a jail, a dispensary, &c.

Sacramento Shoal.—Shoal at the mouth of the Gautami branch of the Godāvari river, off the village of Molletimoga in the Amalāpuram *tāluk* of Godāvari District, Madras, situated in 16° 35′ N. and 82° 14′ E. It is named after the United States steam frigate *Sacramento*, which went ashore here on June 19, 1867. A lighthouse 148 feet high was erected on the shoal in 1902. It has a light of the third order, showing a white light, one flash every five seconds, visible for 18 miles in clear weather. The object of this is to warn vessels off Point Godāvari and the shoal.

Sadābād Tahsīl.—Easternmost *tahsīl* of Muttra District, United Provinces, conterminous with the *pargana* of the same name, lying between 27° 16′ and 27° 31′ N. and 77° 53′ and 78° 13′ E., with an area of 180 square miles. Population rose from 102,103 in 1891 to 108,886 in 1901. There are 127 villages and two towns, including Sadābād (population, 4,091), the *tahsīl* head-quarters. The demand for land revenue in 1903-4 was Rs. 3,07,000, and for cesses Rs. 49,000. The density of population, 605 persons per square mile, is considerably above the District average. A small river, the Karon or Jhirnā, crosses the centre of the *tahsīl*, and its channel has been improved by the Irrigation department to serve as an escape. The Jumna just touches the south-western corner. In 1903-4 the area under cultivation was 154 square miles, of which 59 were irrigated. The latter were supplied entirely from wells; but in November, 1903, the Māt branch of the

Upper Ganges Canal was opened, which commands the western half of the *tahsīl*. Cotton is relatively a more important crop than in any other part of the District.

Sadākherī.—*Thakurāt* in the MĀLWĀ AGENCY, Central India.

Sadalgi.—Village in the Chikodi *tāluka* of Belgaum District, Bombay, situated in 16° 34′ N. and 74° 32′ E., 51 miles north of Belgaum town, and 25 south-east of Kolhāpur. Population (1901), 9,091. Coarse waistcloths, blankets, and women's *sārīs* are woven, but the chief industry in the village and neighbourhood is sugar-making. A large area is cultivated with sugar-cane, and a considerable quantity of molasses is prepared here. The village contains two boys' schools with 35 pupils.

Sadāseopet.—Town in the Kalabgūr *tāluk* of Medak District, Hyderābād State, situated in 17° 37′ N. and 77° 58′ E., 10 miles west of Sangareddipet. Population (1901), 6,672. It is a large emporium, with a flourishing trade in both exports and imports.

Sadāsivgarh.—Fort in North Kanara District, Bombay. *See* CHITĀKUL.

Sadda.—Post in the Kurram Agency, North-West Frontier Province, now garrisoned by a detachment of the Kurram militia. It lies in 33° 30′ N. and 70° 7′ E., on the left bank of the Kurram river. Under Afghān rule Sadda was the head-quarters of the governor of Kurram.

Sādhaura.—Town in the Naraingarh *tahsīl* of Ambāla District, Punjab, situated in 30° 23′ N. and 77° 33′ E., at the foot of the outlying range of the Himālayas. Population (1901), 9,812. It dates from the time of Mahmūd of Ghazni, and contains a mosque built in the reign of Shāh Jahān. A fair held yearly at the shrine of the Muhammadan saint, Shāh Kumais, is attended by 20,000 or 30,000 persons. There is some manufacture of cotton cloth; and the town possesses a steam printing press, and a combined cotton-ginning and pressing factory, which in 1904 employed 55 hands. The municipality was created in 1885. The income during the ten years ending 1902–3 averaged Rs. 6,800, and the expenditure Rs. 6,400. In 1903–4 the income was Rs. 7,300, chiefly from octroi; and the expenditure was Rs. 8,100. There is a vernacular middle school and a dispensary.

Sādikābād.—*Tahsīl* in Bahāwalpur State, Punjab. *See* NAUSHAHRA TAHSĪL.

Sadiyā.—Village in the Dibrugarh subdivision of Lakhimpur District, Eastern Bengal and Assam, situated in 27° 48′ N. and 95° 39′ E., on the right bank of the Brahmaputra river. Sadiyā is the extreme north-east frontier station of British India, and stands on a high grassy plain from which on a clear day a magnificent view is obtained of the hills which surround it on three sides. It is garrisoned by detachments of native infantry and military police. In the neighbourhood are the ruins of extensive forts, which are said to have

been built by Hindu Rājās who preceded the Chutiyās in the sovereignty of the country. A little to the east are the remains of the famous copper temple, at which human sacrifices used at one time to be offered by the Chutiyās, and which was a centre of worship for the tribes on the north-east frontier. In 1839 the Khamtis rose in rebellion and killed the garrison and Colonel White, the officer in charge; and since that day Sadiyā has been the base of a chain of outposts stretching towards the north and east. It is the head-quarters of an officer whose particular duty is to extend his influence over the hill tribes and to keep a watch upon their movements. There is a considerable bazar, at which the hillmen exchange rubber, wax, musk, ivory, and other hill produce for cotton cloth, salt, metal utensils, jewellery, and opium.

Sādra.—Head-quarters of the Mahī Kāntha Agency, Bombay, situated in 72° 47′ N. and 23° 21′ E., on the Sābarmatī river, about 25 miles north of Ahmadābād. Population (1901), 1,683. Sādra contains a small fort said to have been built by Sultān Ahmad I (1411–43), who also built the fort of Ahmadnagar. Colonel Ballantyne, the first Political Agent, built a picturesque bungalow on the side of the fort next the river, which is still the Political Agent's office; a new Residency was built on the southern rampart in 1887. A broad well-laid-out market-place, with rows of trees on both sides, and well lighted at night, leads from the Ahmadābād road to the fort. Near the Residency is the small neat hospital, built with money subscribed by the Mahī Kāntha chiefs, and a public library. The Political Agent exercises direct jurisdiction within the station, but offences committed outside its limits are under the cognizance of the Vāsna Thākur. Several schools are situated at Sādra, including one for minor chiefs and their relations.

Sādra Bāzār.—Petty State in MAHĪ KĀNTHA, Bombay.

Sadras.—Village in the District and *tāluk* of Chingleput, Madras, situated on the coast in 12° 31′ N. and 80° 10′ E., about 35 miles south of Madras city and connected with it by the Buckingham Canal. Population (1901), 1,564. Sadras became a trading settlement of the Dutch in 1647, and was long famous for the fine muslin produced by its looms. The Dutch erected, close to the shore, a brick fort of considerable extent and pretensions to strength, of which the ruins still stand. There are also the remains of the houses of the officials, one of which has long been in use as a halting-place for European travellers. The old Dutch cemetery within the fort, which contains curious and elaborate tombs, is maintained in order by Government. A Dutch church stands on the esplanade opposite the fort. A few weavers still live in the place, but the cunning which produced the once famous fabrics is forgotten. The rest of the inhabitants are

cultivators, and the place is now only a sleepy little village. Sadras was taken by the English in 1795, but given back to the Dutch in 1818. It finally returned to British hands in 1825 along with the rest of the Dutch settlements in India.

Sādri.—Town in the Desuri district of the State of Jodhpur, Rājputāna, situated in 25° 11′ N. and 73° 27′ E., close to the Arāvalli Hills and the Udaipur border, and about 80 miles south-east of Jodhpur city. Population (1901), 6,621. Sādri is an ancient town and possesses several handsome Hindu and Jain temples and a step-well, which bear inscriptions ranging from the eleventh to the sixteenth centuries.

Sadullāpur (*Sadullahpur*).—Village in the Phālia *tahsīl* of Gujrāt District, Punjab, situated in 32° 25′ N. and 73° 53′ E. It was the scene of the action between the British and the Sikhs fought on November 22, 1848. (*See* GUJRĀT DISTRICT.)

Safed Koh.—The most conspicuous mountain range in Eastern Afghānistān, separating the Kābul basin from the Kurram and Afrīdī Tīrāh, and forming a natural division between Afghānistān and India. Starting on the west (34° N., 69° 30′ E.) from near its highest point, Sikarām, 15,620 feet above the sea, it forms a watershed reaching down into Southern Afghānistān, and terminating in a mass of uplands, consisting of the Psein Dāg and Toba (31° 15′ N., 67° E. approx.). Its eastern ramifications extend to the Indus at and below Attock (33° 50′ N., 72° 10′ E. approx.). Among the northern and eastern spurs of this range are those formidable passes between Kābul and Jalālābād in which the disasters of 1841–2 culminated, and the famous Khyber Pass between Jalālābād and Peshāwar. The northern spurs are extremely barren; but the intervening valleys are a combination of orchard, field, and garden, abounding in mulberry, pomegranate, and other fruit trees, while the banks of their streams are edged with turf, enamelled with wild flowers, and fringed by rows of weeping willows. The main range and the upper portion of the spurs are wooded with pine, *deodār*, and other timber trees; many of the southern offshoots are also clothed with pines and wild olive.

Safīdon.—Town in the Jīnd State and *tahsīl*, Punjab, situated in 29° 21′ N. and 76° 42′ E., 24 miles east of Jīnd town. Population (1901), 4,832. Legend ascribes its foundation to the destruction of the serpents (*sarpa damana*, whence Safīdon) by Janamejaya, the son of Rājā Parīkshit, to avenge the death of his father. It lies in the holy tract of Kurukshetra, and the remains to the south of the modern town testify to its former splendour. The Nāgchhetra tank recalls the holocaust of the Nāgs or snakes. The municipality has an income of Rs. 2,300 a year, chiefly derived from octroi; and there is some local trade.

Safīpur Tahsīl.—North-western *tahsīl* of Unao District, United Provinces, comprising the *parganas* of Safīpur, Bāngarmau, and Fatehpur-Chaurāsī, and lying between 26° 38′ and 27° 2′ N. and 80° 4′ and 80° 27′ E., along the Ganges, with an area of 408 square miles. Population increased from 210,141 in 1891 to 225,490 in 1901. There are 360 villages and three towns, SAFĪPUR (population, 7,949), the *tahsīl* head-quarters, and BĀNGARMAU (6,051) being the largest. The demand for land revenue in 1903–4 was Rs. 3,38,000, and for cesses Rs. 35,000. The density of population, 552 persons per square mile, is slightly above the District average. About a third of the *tahsīl* lies in the thinly populated Ganges valley, and the remainder is situated on raised upland. A sluggish stream, called the Kalyānī, flows through the former and does some damage by flooding. The uplands are partly drained by the Sai, which skirts the north-east; they include some light sandy soil, but are generally composed of good loam. In 1903–4 the area under cultivation was 259 square miles, of which 99 were irrigated. Wells supply more than two-thirds of the irrigated area, and tanks and other sources the remainder.

Safīpur Town (or Saipur).—Head-quarters of the *tahsīl* of the same name in Unao District, United Provinces, situated in 26° 45′ N. and 80° 22′ E., on the old road from Delhi to Benares, north of the Ganges. Population (1901), 7,949. The town is said to have been founded by Sai Sukul, a Brāhman, and is generally called after him, Saipur. A religious mendicant subsequently came to the place and was buried there, and the name was changed to Safīpur in commemoration of the holy man. Sai Sukul is said to have been defeated and killed by Ibrāhīm of Jaunpur, who put his lieutenants in charge of the town. Their descendants are still the principal proprietors. Safīpur contains a number of tombs of Muhammadan saints. Besides the usual offices, there are a *munsifī*, a dispensary, and a branch of the Methodist Episcopal Mission. The town is administered under Act XX of 1856, with an income of about Rs. 1,200. A market is held twice a week, and there are also some popular fairs. There is a school with 95 pupils.

Sagaing Division.—North-western Division of Upper Burma, lying between 21° 29′ and 26° 22′ N. and 93° 58′ and 96° 20′ E. It comprises four Districts: the UPPER and LOWER CHINDWIN, bestriding the Chindwin; and SAGAING and SHWEBO, extending from that river across the Mu valley to the Irrawaddy. It is bounded on the north by the unadministered Hukawng valley; on the east by the Mandalay Division; on the south by Myingyan District of the Meiktila Division; and on the west by Manipur and the Chin Hills. The population was 821,769 in 1891 and 1,000,483 in 1901; but the former figure did not include the population of two Shan States in the Upper Chindwin

District which were enumerated in 1901. The distribution of population is given in the following table:—

District.	Area in square miles.	Population, 1901.	Land revenue and *thathameda*, 1903-4, in thousands of rupees.
Shwebo . . .	5,634	286,891	5,50
Sagaing . . .	1,862	282,658	7,93
Lower Chindwin .	3,480	276,383	6,18
Upper Chindwin .	18,590*	154,551	3,45
Total	29,566	1,000,483	23,06

* Area figure revised since the Census of 1901.

There are 4,864 villages and 4 towns: SAGAING (population, 9,643), SHWEBO (9,626), MONYWA, and KINDAT, the first three of which are trade and industrial centres of some importance. The administrative head-quarters are at Sagaing, which is conveniently situated at the south-eastern corner of the Division, the District head-quarters of the Shwebo and Lower Chindwin Districts being accessible by rail, and that of the Upper Chindwin District by rail and river steamer. The majority of the population are Burmans, the number of Burmans in 1901 being no less than 915,204. The only other indigenous race strongly represented is the Shans (68,077), nearly all of whom inhabit the northern townships of the Upper Chindwin District. An appreciable portion of the population is foreign, but most of the 7,704 Musalmāns and 4,538 Hindus enumerated in 1901 were either military policemen or indigenous Zairbādis. A few Chins are found in the hills along the western border of the Upper Chindwin District, and a few Chinamen at the main trade centres. The people, being Burman or Shan for the most part, are nearly all Buddhists. The aggregate of the adherents of the Buddhist faith in 1901 was 981,369, while Christians numbered 3,773, and Animists (practically all Chins) 2,289.

Sagaing District.—District in the Sagaing Division of Upper Burma, lying between 21° 29′ and 22° 15′ N. and 95° 9′ and 96° 4′ E., with an area of 1,862 square miles. It extends across the Irrawaddy, and is bounded on the north by the Lower Chindwin and Shwebo, on the east by Mandalay and Kyaukse, on the south by Myingyan, and on the west by Pakokku and the Lower Chindwin. Sagaing has for its size an exceptional length of navigable waterways within its limits. About 10 miles below Mandalay the Irrawaddy, after skirting the District for more than 20 miles, turns abruptly from the southerly course it has been pursuing and makes a considerable bend westwards across the plain, till it receives the waters of the Mu from the north, after which it

Physical aspects.

begins to turn southwards again as it quits the District. Its westerly course, which begins immediately below Sagaing town, cuts the District into two portions, one north and one south of the channel, the former comprising about two-thirds of the whole. The northern section contains the Sagaing township on the east and the Myinmu, Chaungu, and Myaung townships on the west; the southern is made up of the Tada-u and Ngazun townships. At the south-west corner the Irrawaddy approaches close to, and in the rains is connected by various waterways with, the Chindwin, which for some distance forms the western border of the Myinmu subdivision. The eastern boundary of the same subdivision, separating it from the Sagaing subdivision, is the Mu, which flows southwards from Shwebo into the Irrawaddy, a few miles east of Myinmu village. There are two main hill ranges. The first is the barren Sagaing ridge, which is covered with sparse stunted vegetation and dotted with white-washed pagodas, and runs parallel to the Irrawaddy from Sagaing town up to the northern border of the District, reaching its highest point in the Mingun hill (1,341 feet). The second is a compact cluster of hills lying in the centre of the southern edge of the District on the Myingyan border, at the junction of the Tada-u and Ngazun townships, and culminating in the Mozataung (1,474 feet). All over the District are other patches of rugged elevated country, notably in the north-west on the Lower Chindwin border, and in the country west of Myotha.

The general aspect of the country is very diversified, ranging from rich alluvial soil to barren hills. Along the rivers, where the channel bank is frequently higher than the country behind, the land is flat and low-lying and is inundated yearly. These riparian levels are very rich and productive, and the Irrawaddy itself is full of islands which emerge, silt-laden, from the current at the close of each rainy season and are thus perennially fertile. In the Sagaing township, immediately to the west of the railway, is a large depression called the Yemyet lake, which after heavy rain is occupied by a sheet of water covering an area of 10 miles north and south, and 3 miles east and west, but is almost dry during the hot season. There are numerous *jhīls* in the neighbourhood of the Irrawaddy and Chindwin, and a small salt-water lake at Yega, a few miles north of Sagaing town.

Nearly the whole of the District is covered with alluvium, from beneath which a few patches of soft sandstone of Upper Tertiary (pliocene) age appear, forming low undulating hills. As in Shwebo District, these sandstones are brought down by a great fault against the crystalline rocks—gneiss, granite, and crystalline limestone—which form the narrow ridge of hills running along the western bank of the Irrawaddy. This ridge disappears beneath the alluvium at Sagaing town, where the river breaks across it.

The hilly tracts are mostly covered with thick scrub jungle; in waste places on low land, as at Nabegyu on the Mu and in the east of the Tada-u township, the jungle becomes forest, with many large trees and thick undergrowth and creepers. The following are some of the most common trees: *Bauhinia racemosa*, *okshit* (*Aegle Marmelos*), *nyaung* (*Ficus indica*), common cassia of various kinds (*mezali*, *ngugyizat*), *Terminalia belerica*, *Zizyphus Jujuba*, *tanaung* (*Acacia leucophloea*), *Anthocephalus sp.*, *sha* (*Acacia Catechu*), *Lagerstroemia parviflora*, *kokko* (*Albizzia Lebbek*), *letpan* (*Bombax malabaricum*), the tamarind, which grows to a very large size, the toddy-palm (*Borassus flabellifer*), and the mango. The produce of the fruit trees is collected and sold in the bazars. The Chinese date, the *in*, the *ingyin*, the *pyinma*, the *padauk*, and the *thitya* may also be mentioned.

The larger kinds of wild animals are not found in great numbers; those that frequent the District include the leopard, the jackal, the hog, the *thamin* or brow-antlered deer, the hog deer, the barking-deer, and the hare. There are no tigers, bears, or *sāmbar*, and it is only occasionally that elephants come down from the Lower Chindwin and Shwebo hills into the District. Ducks, geese, and snipe abound in the cold season, and at certain times of the year partridges and quail are plentiful.

Sagaing town is one of the most picturesque, and appears also to be one of the healthiest and coolest, places in the plains of Upper Burma. The sick-rate of the troops while they held the town, and that of the military police since that time, has always been remarkably low. Only two months, April and May, are really hot, and even during these the mean maximum is under 102°, while the average ranges from 76° to 100°. In the winter the temperature oscillates between 60° and 80°. During the rains high south winds sweep across the country, and keep the air cool and pleasant. The great body of water that passes through and around the District probably prevents the thermometer from rising as high in the most oppressive months as it otherwise would. The hot season is not distinguished by persistent sultry winds, though gales of great violence blow occasionally. The end of the rains and the early cold season, when very heavy fogs hang till late in the day all along the Irrawaddy, are the least healthy seasons of the year; but the District as a whole is not insalubrious, and has no fever-haunted hills or *tarai*. No cyclones, earthquakes, or exceptional floods have occurred within memory. The rainfall for the whole District averages about 30 inches per annum, but varies considerably from tract to tract. In 1889, for instance, although the total fall at Sagaing town exceeded by 5 inches the aggregate of the preceding year, elsewhere, notably in the north of the Sagaing subdivision and the south of the Chaungu and Ngazun townships, it was very short.

Up to the time of annexation the history of the District outside Sagaing town and Ava has no special features. From time immemorial it has always been a part of the kingdom of Burma, whether centred at PAGAN, AVA, or SAGAING. After the surrender of king Thībaw, in November, 1885, a column marched from Mandalay to Myingyan through Ava, where it was joined by the *taunghmu* or jailor of Ava, who did good service in the fighting that followed. The fort at Sagaing was occupied as early as December, 1885; but regular administration was not introduced at once, and for two years the District was one of the most turbulent in the Province. Outside the two posts at Sagaing and Myinmu it was in the hands of dacoits, who terrorized the village headmen, and two British officers were killed near Sagaing during the first months of occupation. There were several bands of rebels, the most notorious leader being Hla U, who was a scourge to the country round Myinmu. The old Ava subdivision, comprising the present Tada-u and Ngazun townships, then a separate District, was equally disturbed, the followers of a man named Shwe Yan giving most trouble there. The building of outposts at Myotha and Myinthe, followed by active operations, drove Shwe Yan across the Panlaung in April, but later he took up his head-quarters in the country between the Panlaung and its tributary the Samon. In 1887 the state of the District was no better, and on both sides of the river the country was practically in the hands of the dacoits. Great efforts were made to capture Hla U, but none of them succeeded, and he was ultimately murdered by one of his own followers. His lieutenants, chief among whom were Nyo U, Nyo Pu, and Min O, soon gathered strength, and before long had succeeded in making the country as disturbed as ever. On the Ava side Shwe Yan openly defied the authorities, and two British officers were killed in an engagement with him. Finally, in 1888, military operations on a larger scale were begun under the late General Penn Symons; and though no great measure of success appeared at first to attend them, the resistance to authority slowly weakened, and the strict observance of the Village Regulation by which villages were punished for not resisting the dacoits, and suspicious persons were removed from their local spheres of influence, gradually led to the pacification of the country. By the end of 1888 no less than 26 dacoit leaders, including Shwe Yan, had been killed and 26 captured, and most of their followers had come in and were disarmed. Since that date the District has given no trouble. The Ava District was amalgamated with Sagaing early in 1888.

History.

The ancient capital of AVA is described in a separate article. Pinya and Myinzaing to the south of Ava in the Tada-u township are also old capitals. The pagodas, both in the neighbourhood of Sagaing and throughout the District, are exceedingly numerous, especially on the

barren hills that follow the Irrawaddy on its western bank. By far the best known is the Mingun pagoda, begun by Bodawpayā in 1790 and continued till 1803, but never completed. This huge relic of the glories of the Alaungpayā dynasty, which was intended to eclipse all previous records in pagoda building, is situated on the right bank of the Irrawaddy opposite a point 6 or 7 miles above Mandalay, and is one of the largest solid masses of brickwork known to exist. Only the two lions at the eastern entrance, five walled terraces, and the base of the pagoda had been completed, when an earthquake in 1839 wrecked the lions and cracked the building from top to bottom. Work on it was never resumed after the catastrophe. The present height of the ruin is 130 feet; but, calculating from the model near, it would, when completed, have been about 555 feet in height. Close to it is the famous Mingun bell, the largest bell hung in the world. It is 12 feet high and 16½ feet in diameter at the mouth, and its weight is about 90 tons. More interesting from an archaeological point of view, but less famous than the bell and the ruin, is the Sinpyushin pagoda not far off, built about A.D. 1359, and restored by the queen by whose name it is known. It represents the Myinmo mountain and rises in tiers, on each of which are niches filled with images representing various members of the celestial hierarchy, many of which have been broken or stolen by profane excursionists. The pagoda most reverenced, however, is not the Mingun shrine but the clumsy Yazamanisula or Kaunghmudaw, which raises its almost hemispherical shape from the plain about 5 miles to the north-west of Sagaing. This royal work of merit has achieved so wide a notoriety throughout Indo-China that a miraculous origin has been ascribed to it, despite an inscription at its base, which testifies to its having been built by Thalunmintayāgyi, king of Ava, in 1636. The shrine benefits by the revenue of *wuttugan* lands in its neighbourhood, and has an annual festival. The trustees who manage its affairs keep it in good order. Periodical festivals are held at other pagodas, including the Ngadatgyi, in the south-western suburbs of Sagaing, a shrine founded in 1660 and containing a large masonry figure of Buddha; the Shinbinnangaing and Shwemoktaw pagodas, dating from the tenth century; and the Onminthonze, a crescent-shaped colonnade on the side of the Sagaing hills overlooking Sagaing, with thirty arches containing forty-four figures of Gautama Buddha.

Population.

The population of Sagaing District increased from 246,141 in 1891 to 282,658 in 1901. Its distribution in the latter year is given in the table on the next page.

SAGAING, the head-quarters of the District, is the only town. The density of population, 152 persons per square mile, bears comparison with the most thickly populated Districts of Lower Burma—Henzada

and Hanthawaddy. It is far in excess of the density of the Sagaing Division as a whole (only 33 persons per square mile), and is higher than that of any other District of Upper Burma. Burmans have immigrated in considerable numbers from Mandalay, Myingyan, and Lower Chindwin Districts. More than 99 per cent. of the inhabitants speak Burmese, and all but 2 per cent. are Buddhists.

Township.	Area in square miles.	Number of		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Sagaing . .	485	1	211	77,578	160	+ 16	21,362
Tada-u . .	310	...	157	46,661	151	+ 1	12,074
Myinmu . .	286	...	86	41,256	144	+ 5	9,581
Chaungu . .	177	...	88	33,134	187	+ 10	6,019
Myaung . .	246	...	79	31,497	128	+ 25	7,018
Ngazun . .	358	...	169	52,532	147	+ 17	12,215
District total	1,862	1	790	282,658	152	+ 15	68,269

The population is almost wholly Burmese, the Burman aggregate in 1901 being 278,500 or 98 per cent. of the total. Musalmāns numbered 1,800, and Hindus 930. Of these, 1,300 were Indians. Zairbādis are plentiful in Sagaing town, and in the interior of the District: as, for instance, at Ywathitgyi, a large village on the Irrawaddy about half-way between Sagaing and Myinmu, where communities of Musālman Burmans show no signs now of any Indian admixture. A large proportion of the non-immigrant Hindus are Ponnas or Manipuris, who have a quarter of their own in Sagaing town. The Census of 1901 showed 163,785 persons directly dependent on agriculture, or only 58 per cent. of the population, as compared with 66 per cent. for the Province as a whole.

In 1901 there were 748 native Christians, most of them Roman Catholics, centred round the missions at Chaungu and Nabet, who are said to be descended from Portuguese and other prisoners captured at Syriam in the seventeenth and eighteenth centuries. The American Baptist Union has a mission and church at Sagaing, but the number of Baptist converts is not large.

Agriculture.

There is great diversity in the nature of the country as well as in the methods of cultivation, especially in the north-west, which presents large stretches of rice land dependent on the rainfall for its success. The Myinmu township consists chiefly of plateaux and undulating uplands. In the western half of the Chaungu and in the Myaung township, in the wedge-shaped area formed by the junction of the Irrawaddy and Chindwin, large tracts are

subject to yearly inundation, and the richest lands are found here. The Ngazun township is dry and undulating, while to the south of Ava the country consists chiefly of level black cotton soil.

Various distinct kinds of cultivation are carried on. Wet-season rice is grown on land falling into two separate categories: namely, land submerged by the annual rise of the river (*ye-win-le*), and land beyond the reach of inundation (*mogaung-le*). In July and August nurseries are sown on the higher lands in the inundated tract, and when the river begins to fall after the highest rise the planting of the seedlings is taken in hand. In uninundated land nurseries are sown from the end of June through July, and are planted out in August and September. The crops begin to ripen in November, and the harvest continues till after Christmas. Dry-season (*mayin*) rice is grown wherever sufficient water remains in the hollows along the river bank when the floods have subsided. Nurseries are sown in December, planting out begins in January, and the crop is ready for reaping towards the end of April. 'Dry' or *ya* cultivation is practised on the poorer kinds of uninundated land, and is mainly composed of three chief crops: sesamum, millet, and cotton. Early sesamum, a somewhat precarious crop, is grown but little. Late sesamum, on the other hand, is the most largely cultivated of all staples in the District, though the plant is delicate and is apt to suffer from lengthy drought towards the end of September and during October. Millet (*jowār*), sown towards the end of July and throughout August, is ready for cutting by the end of January and till near the end of February. It is cultivated almost as much for the sake of its stalk, which affords excellent fodder for cattle, as for its grain, which is used for human consumption only in the poorest parts of the District. Cotton is sown after the early rains in May, and picking begins in October. Wheat, always of the bearded variety, is an important crop. It is grown in *sane*, the level rich black soil of the Sagaing and Tada-u townships, in November, and ripens about the beginning of March. The *sane* soil is suitable also for oats, linseed, gram, and other staples.

Various miscellaneous crops are grown on alluvial and inundated land, and are classified together under the head of *kaing* cultivation. These are very numerous, the commonest being pulse of various kinds, such as gram, *pegya*, *sadawpe*, *peselon*, and *matpe*. The *kaing* lands are ploughed up before the river rises, so that the moisture may penetrate as deep as possible. When the water falls and they are sufficiently dry again they are usually harrowed, and sowing commences in October. The harvest is gathered in March. Onions, tobacco, maize, chillies, sweet potatoes, and indigo are grown on these lands, but the areas under these crops are small.

The total area under cultivation was 372 square miles in 1891,

and 473 square miles in 1901. For 1903-4 the main agricultural statistics are shown in the following table, the areas being in square miles:—

Township.	Total area.	Cultivated.	Irrigated.
Sagaing . . .	485	177	2·30
Tada-u . . .	310	117	4·37
Myinmu . . .	286	120	0·56
Chaungu . . .	177	96	1·76
Myaung . . .	246	96	0·17
Ngazun . . .	358	164	1·60
Total	1,862	770	10·76

Sesamum covered 210 and millet 184 square miles in 1903-4, while the comparatively small area of 148 square miles was under rice, 19 square miles being dry-season rice. The greater part of the entire wheat crop of Burma is grown in this District, the area being 32 square miles; peas in the same year covered 119, gram 17, and cotton about 67 square miles. This last crop is grown for the most part in the Tada-u and Ngazun townships, on the high ground which extends into Meiktila and Myingyan Districts; and after Myingyan, Sagaing shows the largest cotton acreage in the Province. Gardens covered only 1,100 acres in the neighbourhood of Sagaing town and the large villages of the District, and tobacco 2,500 acres.

The cropped area is steadily and rapidly increasing in extent, its growth being only retarded temporarily by a bad season. The quality of the cultivation is much the same as it has been from time immemorial, and the introduction of new kinds of seed is regarded by the Burman more as a curiosity than anything else. Experiments with American tobacco, Egyptian cotton, and other non-indigenous varieties of seed have been made, but none has met with marked success. Except in 1902-3 no agricultural loans have been advanced during the past few years to cultivators.

There are no special breeds of cattle, except on a small stock farm at Myinmu, where Madras bulls have been placed for breeding purposes, though with little result. The ordinary Burmese bullocks and buffaloes are used for ploughing; and sheep and goats are bred in fair numbers, chiefly by Indians and Chinese, who buy in the District cheap and sell at a profit in Mandalay. Goats are freely used for milch purposes. Pony-breeding is not extensive. Stallions are kept here and there, their owners taking them round to adjacent villages, and letting them out on hire at fees ranging between Rs. 5 and Rs. 10. The ponies in Chaungu appear to be strong and hardy, and it is said that the military police detachment in Monywa buys most of its animals there. Pig-breeding is carried on in certain localities. Grazing

grounds are sufficient for all requirements, and there is no difficulty in feeding the cattle.

The only irrigation works of importance are tanks, mostly small. The chief are the Kyaungbyu, Taeinde, Pyugan, and Obo-tamayit tanks, all in the Sagaing township, the Kandaw tank in the Myinmu township, and the Kandaw-Kanhla in the Tada-u township. On the right bank of the Mu a powerful steam-pump was set up a few years ago by a European grantee to irrigate his grant, and the results are said to have been good. The total area irrigated in 1903-4 was distributed as follows: from tanks, 3,400 acres; from wells, 2,100 acres; total, 6,900 acres, nearly all under rice. There are numerous fisheries in the neighbourhood of the channels of the Irrawaddy and Chindwin. The most important are the Tande fishery in the Sagaing township near the Kaunghmudaw pagoda, the Maungmagan fishery in the Sagaing township near Byedayaw village, the Sindat-Gaungbo-Myitton fishery in the Sinbyugon circle of the Ngazun township, the Twingya fishery in the Ngazun township, the Inmagyi-Komachaung fishery in the Myinmu township, and the Taunggaw fishery in the Chaungu township. They are leased by auction, and produced a revenue of Rs. 58,700 in 1903-4.

No forests are 'reserved' or protected in the District, but the timber-collecting stations at the mouth of the Mu and the Myintge are within its limits. On parts of the low-lying land are found stretches of timber growth the constituents of which have been enumerated under Botany. Except for cutch, however, they contain little of economic value.

Limestone is extracted at the foot of the Sagaing hills, and is burnt in two villages, one on the outskirts of Sagaing town and the other a few miles above Mingun on the river bank. The industry is not a thriving one, and the annual profits of a lime-burner nowadays are said to average only about Rs. 200. Copper has been found in small quantities in the Sagaing hills, but has never been systematically worked. Clay suitable for pottery and brick-making is found here and there, and in the Sagaing township a little salt is produced.

Trade and communications.

There are gold- and silversmiths at Sagaing, Ywataung, and Wachet. Brass-workers ply their trade in the same towns and a few of the larger villages, and convert sheets bought in the Mandalay bazar into spittoons, betel and lime boxes, drinking cups, filters (*yesit*), bowls, and trays. The local blacksmiths obtain their iron in the bazars, and manufacture *das*, axes, pickaxes, scythes, ploughs, wheel-tires, and similar articles. The shaping from local sandstone of *kyaukpyins*, the round flat stones used for grinding *thanatka* (a vegetable cosmetic), gives employment to a number of persons in Kyaukta village in the east of the Sagaing township. The finished articles are taken for the most part to Mandalay

for sale. In and near Sagaing reside several sculptors of figures of Gautama, which are hewn from the white marble brought from the Sagyin hill in Mandalay District. The artificers go to the quarries and buy their rough material on the spot ready shaped into approximately conical blocks, bringing it over to Sagaing by cart and boat. The images are usually well finished, but the design is stereotyped and tasteless. For some years past the sculptors have been one by one attracted to Mandalay, where the expenses of procuring the rough stone are lighter, and a readier sale for their work is obtained. Ordinary rough red earthenware waterpots are made in the neighbourhood of Sagaing and elsewhere throughout the District. At Myitpauk, a village on the river just below Myinmu, the common red earthenware is glazed a dark green and brown to prevent percolation. Sugar-boiling is practised wherever there are sufficient toddy-palm trees to make the industry pay. Cutch-boiling used to be a regular source of employment, but the industry is now almost moribund. Silk-weaving is common, the silk employed coming from China or Siam. The Sagaing silks are famous; and sometimes from 100 to 150 shuttles are used in weaving a *luntamein* or a *lunpaso*, the design in which is so elaborate that not more than 1 inch width of the pattern can be woven in a day. A *tamein* (skirt) of this kind costs from Rs. 12 to Rs. 15; a *paso* (waistcloth) from Rs. 100 to Rs. 150. The weaving is all done by hand. There are, in fact, no factory industries whatever in the District. Salt-boiling is carried on systematically only in two villages, Sadaung and Yega in the Sagaing township. In the former wells are sunk to obtain the brine; in the latter salt is obtained by evaporating the water of a small lake. Lacquer-work is done in some of the quarters of the old town of Ava, but in quality it is inferior to that produced in Myingyan District.

The chief exports are cleaned cotton, sesamum and its oil, wheat, gram and pulses, tobacco, onions, maize and maize husks, sweet potatoes, and indigo. The cotton trade is chiefly in the hands of Chinamen, who have set up numerous hand-gins at Kyauktaloṅ, Ywathitgyi, Ondaw, and other villages in the cotton-growing area. The cleaned product is carried by river, the good quality to Bhamo for transmission to China, the inferior to Rangoon for shipment to the Straits Settlements. From the east of the District some of the villagers take their own oil and indigo to Mandalay, but most of the two latter products, and nearly all the maize, is shipped down the river to Pakokku. Fruit—mangoes, guavas, oranges, limes, tamarinds, pineapples, and melons—is sold to passing steamers, or taken in small quantities to Mandalay.

The imports comprise rice, dried fish, *ngapi*, pickled tea, salt, betel-nuts, coco-nut oil, petroleum, timber, bamboos, iron and hardware, crockery, piece-goods, raw silk, miscellaneous articles of European make,

and liquor. Among the chief centres of trade, besides Sagaing town, are Tada-u, through which most of the surplus produce of the middle of the Tada-u township passes on its way to the river; and Kyauktalon and Ywathitgyi, river stations for the inland parts of the Ngazun and Sagaing townships. The produce from the Myaung and the south of the Chaungu township finds its exit to the river at Nagabauk, in the extreme south-west corner of the District; that from the west of Chaungu chiefly at Amyin in the north-west, but most of the trade of these two townships passes through Chaungu and thence to Myinmu. The road from the latter town to Monywa has hitherto been the route of a considerable transit trade with the Chindwin. Probably the railway will now divert most of it via Sagaing.

The Sagaing-Myitkyinā railway, starting from the Irrawaddy bank at Sagaing town, runs northwards along the eastern edge of the District for about 24 miles, having four stations within its limits. From the first of these, Ywataung, a branch leads off almost due west to the Chindwin, entering Lower Chindwin District near Chaungu, between 50 and 60 miles from Sagaing. After leaving Ywataung it has ten stations in the District. A good deal of the interior of the District is thus brought into touch with both the Irrawaddy and the Chindwin. These two rivers are navigable for all traffic up to large river steamers, the Irrawaddy Flotilla Company providing bi-weekly communication on the Irrawaddy with all down-river ports, and daily communication with places between Mandalay and Myingyan. The railway company provides the steam ferry between Sagaing and Amarapura Shore, connecting the Myitkyinā extension with the main railway system of Burma. Country boats go up the Panlaung, Myitnge, and Samon rivers into the interior of Mandalay and Kyaukse Districts, and in the rains the Mu river is navigable for light country traffic into Shwebo District. An old highway, called the Minlan, follows the Samon valley from Ava to the south, but is now falling into disuse. Since annexation a road has been made from Myinmu on the Irrawaddy to Monywa on the Chindwin. Minor roads are those from Myotha to Kyauktalon on the left bank of the Irrawaddy near Ngazun, affording access to the river from a fine cotton country; from Chaungwa in the south-east towards Kyaukse, from Tada-u to Myotha, from Padu to Sadaung in the north-east, and from Ywathitgyi to Legyi near the centre of the District. Exclusive of the roads in Sagaing town, 263 miles of road are kept up, of which 65 miles are maintained from Provincial revenues and 198 miles from the District fund. There are a number of ferries across the Irrawaddy and Chindwin.

So much of its area is watered by the Irrawaddy and Chindwin, and is thus rendered in a measure independent of its rather meagre rainfall, that the District, as a whole, can be depended upon to produce

enough food as a general rule to prevent a famine. A drought, however, is bound to occasion at least local scarcity; and in 1891–2 it was found necessary, owing to a failure of crops, to open relief works and spend about Rs. 9,000 in helping the inhabitants of the affected tracts. Scarcity was threatened towards the end of 1903, but some opportune showers in September saved the situation. The District can never be wholly free from a calamity such as seemed imminent in 1903, but its communications, by both land and water, are so ample that the distress need never assume alarming proportions.

Famine.

For administrative purposes the District is divided into two subdivisions: Sagaing, comprising the SAGAING and TADA-U townships; and Myinmu, comprising the MYINMU, CHAUNGU, MYAUNG, and NGAZUN townships. The subdivisions and townships are under the usual executive officers, assisted by 389 village headmen, to 29 of whom have been given special criminal powers under the Upper Burma Village Regulation, and to 46 special civil powers under the same enactment. At head-quarters are a treasury officer, an *akunwun* (in subordinate charge of the revenue), and a superintendent of land records, with a staff of 8 inspectors and 80 surveyors. There are no superior Forest and Public Works officers in the District, which forms a portion of the Mu Forest division and constitutes a subdivision of the Shwebo Public Works division.

Administration.

The subdivisional and township officers preside in the respective subdivisional and township courts (civil and criminal), but the Sagaing township officer is assisted in his civil duties by the head-quarters magistrate, who is *ex-officio* additional judge of the township court. Crime is of the ordinary type, and there is a good deal of litigation in the District.

During the last years of Burmese rule the revenue consisted of *thathameda* and a land tax at the rate of one-fourth of the gross produce, assessed by *thamadis* (specially selected village elders), and paid in money at the market rate; but the greater part of the lands were held by members of the royal family or by servants of the government, and were not assessed. At annexation the existing revenue system was continued and applied to all state land, an exception being made in the case of certain *wuttugan* or religious lands which paid preferential rates of one-eighth or one-tenth of the gross produce. On non-state lands a water rate was levied on irrigated land only. Settlement operations were commenced in 1893 and completed in 1900, the rates proposed being first levied in the agricultural year 1903–4. On inundated land cold-season rice is now assessed at from Rs. 1–8 to Rs. 3–6 per acre, *mayin* (hot-season) rice at from R. 1 to Rs. 3, and *kaing* crops (onions, beans, &c.) at from R. 1 to Rs. 5–4 per acre. Wheat pays from 6 annas

on the most unfavourable *yas* (uplands) to Rs. 2-8 per acre on the best rice land, unirrigated rice from 6 annas to Rs. 2. Other crops on upland tracts are assessed at from 6 annas to Rs. 2-8. The rate for toddy-palm groves is Rs. 4, that for mixed orchards Rs. 8, and that for betel-vineyards Rs. 20 per acre. The rates on non-state land are generally three-fourths of those stated above, which are levied on state land.

The following table shows the growth of the land revenue and total revenue since 1890-1, in thousands of rupees :—

	1890-1.	1900-1.	1903-4.
Land revenue . .	67	1,01	5,19
Total revenue . .	6,44	7,74	9,48

The increase in the land revenue between 1900-1 and 1903-4 is due to the introduction of the acreage rates referred to above. The *thathameda* showed a corresponding decrease from Rs. 5,71,000 to Rs. 2,74,200.

The District fund, for the provision of roads and other local needs, had an income of Rs. 53,000 in 1903-4, the chief item of expenditure being Rs. 47,000 on public works. SAGAING is the only municipality.

The two subdivisions are each in charge of an inspector of police, and there are 10 police stations and 5 outposts in the District. The civil force consists of 4 inspectors, 9 head constables, 28 sergeants, and 296 rank and file, including 23 mounted men. The military police, who belong to the Shwebo battalion, number 85. There are no jails or reformatories. Prisoners are sent on conviction to the Mandalay Central jail, and those under trial are kept in a lock-up close to the courthouse.

The proportion of persons able to read and write to the total population of the District in 1901 was 48 per cent. in the case of males, and 3 per cent. in that of females, or 24 per cent. for both sexes together; but the educational standard is really higher than these figures would appear to show. The *pongyis* of Sagaing are as a whole exceptionally enlightened and progressive, and many of the lay schools are above the average. The total number of pupils was 7,254 in 1890-1, 12,672 in 1900-1, and 12,665 in 1903-4, including 1,421 girls. In the last year there were 10 special, 7 secondary, 147 primary, and 987 elementary (private) institutions. The more notable institutions are the municipal Anglo-vernacular school in Sagaing town, now maintained by Government, and the vernacular secondary schools in Sagaing town and at Sungyet, Allagappa, and Myotha. The total expenditure on education in 1903-4 was Rs. 18,400, to which Provincial funds contributed Rs. 16,100, municipal funds Rs. 2,300, and fees Rs. 2,100.

Four hospitals are maintained from public funds and two dispensaries by the railway company. The former have accommodation for 88 in-patients. In 1903 the number of cases treated was 22,270, including 703 in-patients, and 430 operations were performed. The total income of the four hospitals was Rs. 10,700, towards which municipal funds contributed Rs. 5,000, Provincial funds Rs. 5,100, and subscriptions Rs. 6,000.

Vaccination is compulsory only within the limits of the municipality of Sagaing. In 1903–4 the number of successful operations was 8,207, representing 28 per 1,000 of the population. Vaccination is popular, and no opposition is met with in the rural areas.

[L. M. Parlett, *Settlement Report* (1902).]

Sagaing Subdivision.—Subdivision of Sagaing District, Upper Burma, containing the SAGAING and TADA-U townships.

Sagaing Township.—Township of Sagaing District, Upper Burma, between the bend of the Irrawaddy on the east and the Mu river on the west. It lies between 21° 50′ and 22° 15′ N. and 95° 38′ and 96° 4′ E., with an area of 485 square miles. The township is level throughout, save for a fringe of low hills running parallel to the Irrawaddy up its eastern edge. The population was 66,989 in 1891, and 77,578 in 1901, distributed in one town, SAGAING (population, 9,643), the head-quarters, and 211 villages. The area cultivated in 1903–4 was 177 square miles, and the land revenue and *thathameda* amounted to Rs. 1,97,500.

Sagaing Town.—Head-quarters of the Division and District of the same name in Upper Burma, picturesquely situated in 21° 54′ N. and 96° E., opposite Amarapura on the right bank of the Irrawaddy, at the sweeping curve of that river, as it changes its course from south to west. The bank here is high, and the town, embowered in tamarind-trees, is unusually healthy. The civil station occupies the southern portion of the river front. The native quarters lie to the south, north, and north-west of the European quarter; and on the foreshore in the north-east corner of the town are the railway station and the steamer *ghāt*, whence communication is established with the Amarapura side of the river by a steam ferry. North of the railway station again stretches a long range of arid hills covered with pagodas and monasteries, which follows the Irrawaddy along its western bank as far as the north-eastern angle of the District. There is a good road along the river front from the railway station to the Commissioner's residence, and most of the main roads of the town run parallel to or at right angles to it.

The population of Sagaing town was 9,934 in 1891 and 9,643 in 1901, and included in the latter year 670 Musalmāns and 218 Hindus. In addition to a fairly large Indian population, the town contains a good many Ponnas or Manipuris, who live in a quarter of their own.

It is a fairly thriving industrial centre, and is well-known for its silk-weaving.

Sagaing (or Sit-kaing, 'the branch of a *sit* tree') dates as a capital from A.D. 1315, when Athin Khaya made himself independent of the Shan kingdom of Pinya. In 1364 Athin Khaya's grandson, Thadominpayā, founded the kingdom of Ava, and Sagaing was destroyed by the Shans. It was at Sagaing that the Manipuri invasion of 1733 was checked; but the town did not again become a capital till 1760, when a city, with a circumference of 2 miles, was built by Naungdawgyi, the eldest son of Alaungpayā, only to lapse into comparative insignificance on his death. The old city lies to the north of the present town, north of the Zingyan creek and east of the Sigongyi pagoda. An attempt was made by the Burman garrisons of Sagaing to stop the British flotilla ascending the Irrawaddy in the 1885 expedition; but the forts, being inadequately defended on the land side, were soon captured.

Sagaing was constituted a municipality in 1888. The municipal income and expenditure during the ten years ending 1901 averaged Rs. 27,000. In 1903-4 the income was Rs. 35,700, including Rs. 14,700 from the bazars and Rs. 3,800 house and land tax; and the expenditure was Rs. 36,000, the chief items being conservancy (Rs. 6,600), hospital (Rs. 5,500), roads (Rs. 3,900), and lighting (Rs. 2,900). The municipality owns a large and a small bazar, and supports a hospital with 64 beds. There is an Anglo-vernacular school at Sagaing, maintained till recently by the municipality at a cost of Rs. 2,300 annually. It is now maintained by Government.

Sāgar.—District, *tahsīl*, and town in the Central Provinces. *See* SAUGOR.

Sāgar Tāluk.—Western *tāluk* of Shimoga District, Mysore, lying between 13° 51′ and 14° 20′ N. and 74° 38′ and 75° 18′ E., with an area of 666 square miles. The population in 1901 was 56,818, compared with 58,999 in 1891. The *tāluk* contains one town, Sāgar (population, 3,103), the head-quarters, and 245 villages. The land revenue demand in 1903-4 was Rs. 1,71,000. The west and great part of the north and south are bounded by the Western Ghāts, from which a ridge crosses the *tāluk* from west to east. The extreme west is not more than 8 miles from the sea. Devarkonda and Govardhangiri are the principal heights. The Sharāvati flows through the middle in a north-westerly direction, receiving the Yenne-hole at the frontier, where it turns west, forming the celebrated GERSOPPA FALLS, and continuing along the boundary. The Varada rises in the north-east and flows out north. The whole *tāluk* is considered Malnād, but the south-west and north-east, separated mostly by the Sharāvati, differ a good deal. In the former the rice-fields bear a double crop annually, but the areca, pepper, and cardamom gardens are somewhat inferior. This tract

presents the appearance of a rolling stretch of bare hill-tops, with their sides and valleys densely wooded. The scenery is surpassingly beautiful, and the climate cool and pleasant even in the hottest season. The people live in scattered homesteads, and there are no villages with a collection of houses. The other parts of the *tāluk* are more level and open, but the climate is not so good. Only one crop of rice is raised in the year, but the gardens are remarkably fine. As a rule the people live in villages, but there are many scattered homesteads, especially in the south-west. Except the great Hinni forest, south of the Gersoppa Falls, the remainder are chiefly *kāns* or tracts of evergreen forest containing self-sown pepper. Towards the south the forest is in patches, very dense inside but suddenly opening on bare spots containing nothing but grass. This is due to laterite, on which trees refuse to grow. The demand for leaf-manure for the gardens is ruining the forests, as they are mercilessly stripped for the purpose. The soil in the *kāns* is rich and deep, but in most of the *tāluk* it is hard and shallow, with much laterite. 'Dry crops' are of no importance, but rice is largely exported by the ryots to Gersoppa by the Govardhangiri and Hinni *ghāts*, that of the south being sent to Bhatkala or Baidūr. Areca-nuts are sent towards Bellary, and also to Wālājāpet and Birūr. Cardamoms and pepper go to the Kanara and Dhārwār markets.

Sāgar Island.—Island at the mouth of the Hooghly river in the Twenty-four Parganas District of Bengal, lying between 21° 36′ and 21° 56′ N. and 88° 2′ and 88° 11′ E. The name means 'the sea,' and situated, as it is, at the point where the holy Ganges once mingled its waters with the Bay, the island is regarded as peculiarly sacred. It is the scene of a great annual bathing festival, where thousands of pilgrims congregate from all parts of India to wash away their sins. A good deal of business takes place in articles from Calcutta, such as mats and stoneware. Much progress has been made of recent years in the reclamation of the island, the north part of which is now well cultivated; but the south is still dense jungle. The cyclone of 1864 caused enormous destruction and loss of life, and only 1,500 out of a population of 5,600 survived the catastrophe. There is a lighthouse on the island.

Sāgar Town.—*Jāgīr* town in the Shāhpur *tāluk* of Gulbarga District, Hyderābād State, situated in 16° 37′ N. and 76° 48′ E., 6 miles south of Shāhpur town. Population (1901), 5,445. Two large tanks and the shrine of Sūfi Sarmast, a Musalmān saint, lie close to the town.

Sagauli.—Village in the head-quarters subdivision of Champāran District, Bengal, situated in 26° 47′ N. and 84° 45′ E., on the road to Nepāl. Population (1901), 5,611. In the Mutiny of 1857, the 12th Regiment of Irregular Horse, which was stationed here, mutinied

and massacred the commandant, Major Holmes, his wife and children, and all the Europeans in the cantonment.

Sagrī.—North-eastern *tahsīl* of Azamgarh District, United Provinces, comprising up to 1904 the *parganas* of Gopālpur, Sagrī, Ghosī, and Natthūpur, and lying between 26° 1′ and 26° 19′ N. and 83° 4′ and 83° 52′ E., with an area of 589 square miles. In October, 1904, the two last-named *parganas* were transferred to the new GHOSĪ TAHSĪL, and a number of villages were transferred from Gorakhpur District, making the new area 345 square miles. Population fell from 469,817 in 1891 to 421,740 in 1901, the population of the area as now constituted being 234,872. There are now 755 villages and one town, Mahārājganj (population, 2,192). The demand for land revenue in 1903–4 was Rs. 4,32,000, and for cesses Rs. 72,000; but the figures for the area as now constituted are Rs. 2,40,000 and Rs. 39,000 respectively. The density of population of the reduced *tahsīl* is 681 persons per square mile, considerably below the District average. The *tahsīl* lies south of the Gogra and is chiefly drained by the Chhotī Sarjū. The greater part of the area is upland, but along the Gogra and Chhotī Sarjū are large stretches of alluvial soil called *kachhār*. In 1899–1900, 327 square miles of the old area were under cultivation, of which 218 were irrigated, wells being the chief source of supply.

Sagu.—South-eastern township of Minbu District, Upper Burma, lying along the Irrawaddy, between 19° 53′ and 20° 23′ N. and 94° 30′ and 95° 2′ E., with an area of 542 square miles, which comprises a stretch of dry undulating country round the town of Minbu. The eastern part of the township is irrigated by the Man river canal system, which is being extended. The population was 43,659 in 1891, and 57,699 in 1901, distributed in one town, MINBU (population, 5,780), the head-quarters of the District, and 197 villages, Sagu (4,294), on the Man river, being the township head-quarters. The area cultivated in 1903–4 was 105 square miles, and the land revenue and *thathameda* amounted to Rs. 1,57,000.

Sahāranpur District.—District in the Meerut Division of the United Provinces, lying between 29° 34′ and 30° 24′ N. and 77° 7′ and 78° 12′ E., with an area of 2,228 square miles. It is bounded on the north by the Siwālik Hills, which separate it from Dehra Dūn District; on the east by the Ganges, dividing it from Bijnor District; on the south by Muzaffarnagar District; and on the west by the river Jumna, separating it from the Punjab Districts of Karnāl and Ambāla. Sahāranpur forms the most northerly portion of the DOĀB or alluvial plain between the Ganges and Jumna. On its northern boundary the Siwāliks rise abruptly, pierced by several passes and crowned by jagged summits which often assume the most fantastic shapes. At their base stretches a wild submontane tract (*ghār*) overgrown with forest or

jungle, and scored by the rocky beds of innumerable mountain streams (*raos*). South of this forest belt lies the plain, an elevated upland tract flanked on both sides by the broad alluvial plains which form the valleys of the Jumna and Ganges. Besides the two great rivers there are many smaller streams. Excluding arms of the Jumna and Ganges, these fall into two classes: those which are formed by the junction of the torrent beds issuing from the Siwāliks, and those which rise in various depressions and swamps. Though the *raos* are sometimes dry during the greater part of the year, their channels lower down gradually assume the form of rivers, and contain water even in the hot season. Chief among these rivers may be mentioned the HINDAN, which rises in the centre of the Siwāliks and after crossing several Districts joins the Jumna; and the SOLĀNI, lying farther to the east and falling into the Ganges in Muzaffarnagar District.

Physical aspects.

The geology of the SIWĀLIKS has been dealt with in the description of those hills. They consist of three main divisions: (1) the upper Siwālik conglomerates, sands, and clays; (2) the middle Siwālik sandrock; and (3) the lower Siwālik or Nāhan sandstone. The middle and upper rock stages have yielded a magnificent series of fossils, chiefly mammalian[1]. The *ghār* or belt below the Siwāliks consists of débris from the hills with a shallow light soil resting on boulders. The prevailing soil in the plain is a productive loam, which stiffens into clay in depressions, while along the crests of slopes it merges into sand.

The natural flora of the District forms two groups: the luxuriant tropical forest trees and plants of the Siwālik slopes, and the products of the plains which resemble those of other Districts. The botanical gardens at Sahāranpur form an important centre for the distribution of plants, and are also the head-quarters of the Botanical Survey of Northern India. The District is noted for the production of excellent fruit of European varieties, especially peaches.

Tigers are still fairly numerous in the Siwālik and submontane forests, and are found more rarely in the Ganges *khādar*. Leopards, wolves, and wild hog are common, and the lynx, hyena, and sloth bear are also found. Wild elephants occur in the Siwāliks. Deer of various sorts, the *sāmbar* or *jarau*, *chītal* or spotted deer, *kākar* or barking-deer, and *pārha* or hog deer are also found, while the four-horned antelope and the *gural* haunt the Siwāliks. The *karait* and cobra are the commonest poisonous snakes, while the Siwālik python grows to an immense size. The mahseer affords good sport in the Ganges and Jumna, and in the canals, and other kinds of fish are common.

The climate is the same as that of the United Provinces generally,

[1] Falconer and Cautley, *Fauna Antiqua Sivalensis*; Lydekker and Foote, *Palaeontologia Indica*, series X.

modified by the northern position of the District and the cool breezes from the neighbouring hills. The cold season arrives earlier, and lasts longer, than in the lower Districts; but the summer months are tropical in their extreme heat. The tract at the foot of the hills was very unhealthy before the jungle was cleared; but the climate is now comparatively good, except in the actual forest, which is still malarious during and immediately after the rains. Fever is common throughout the District.

The rainfall varies in different parts of the District and is heaviest near the hills, where no recording station exists. The annual average for the whole District is about 37 inches; but it ranges from 33 inches at Nakūr in the south-west to 43 at Roorkee in the north-east.

History.

The portion of the Doāb in which Sahāranpur is situated was probably one of the first regions of Upper India occupied by the Aryan colonists, as they spread eastward from their original settlement in the Punjab. But the legends of the Mahābhārata centre around the city of Hastināpur, in the neighbouring District of Meerut; and it is not till the fourteenth century of our era that we learn any historical details with regard to Sahāranpur itself. The town was founded in the reign of Muhammad bin Tughlak, about the year 1340, and derived its name from a Musalmān saint, Shāh Haran Chishtī, whose shrine is still an object of attraction to Muhammadan devotees.

At the close of the fourteenth century the surrounding country was exposed to the ravages of Tīmūr, who passed through Sahāranpur on his return from the sack of Delhi, and subjected the inhabitants to all the horrors of a Mongol invasion. In 1414 the tract was conferred by Sultān Saiyid Khizr Khān on Saiyid Salīm; and in 1526 Bābar marched across it on his way to Pānīpat. A few Mughal colonies still trace their origin to his followers. A year later the town of Gangoh was founded by the zealous missionary, Abdul Kuddūs, whose efforts were the means of converting to the faith of Islām many of his Rājput and Gūjar neighbours. His descendants ruled the District until the reign of Akbar, and were very influential in strengthening the Musalmān element by their constant zeal in proselytizing. During the Augustan age of the Mughal empire Sahāranpur was a favourite summer resort of the court and the nobles, who were attracted alike by the coolness of its climate and the facilities which it offered for sport. The famous empress, Nūr Mahal, the consort of Jahāngīr, had a palace in the village which still perpetuates her memory by its name of Nūrnagar; and under Shāh Jahān the royal hunting seat of Bādshāh Mahal was erected by Alī Mardān Khān, the projector of the Eastern Jumna Canal. The canal was permitted to fall into disuse during the long decline of the Mughal empire, and it was never of much practical utility until the establishment of British rule.

After the death of Aurangzeb, this region suffered, like the rest of Upper India, from the constant inroads of warlike tribes and the domestic feuds of its own princes. The first incursion of the Sikhs took place in 1709, under the weakened hold of Bahādur Shāh; and for eight successive years their wild hordes kept pouring ceaselessly into the Doāb, repulsed time after time, yet ever returning in greater numbers, to massacre the hated Muhammadans and turn their territory into a wilderness. The Sikhs did not even confine their barbarities to their Musalmān foes, but murdered and pillaged the Hindu community with equal violence. In 1716, however, the Mughal court mustered strength enough to repel the invaders for a time; and it was not until the utter decay of all authority that the Sikhs once more appeared upon the scene.

Meanwhile the Upper Doāb passed into the hands of the Saiyid brothers of Bārha, whose rule was more intimately connected with the neighbouring District of MUZAFFARNAGAR. On their fall in 1721 their possessions were conferred upon various favourites in turn, until, in 1754, they were granted by Ahmad Shāh Durrāni to Najīb Khān, a Rohilla leader, as a reward for his services at the battle of Kotila. This energetic ruler made the best of his advantages, and before his death (1770) had extended his dominions to the north of the Siwāliks on one side, and as far as Meerut on the other. But the close of his rule was disturbed by incursions of the two great aggressive races from opposite quarters, the Sikhs and the Marāthās. Najīb Khān handed down his authority to his son, Zābita Khān, who at first revolted from the feeble court of Delhi, but on being conquered by Marāthā aid was glad to receive back his fief through the kind offices of his former enemies, then supreme in the councils of the empire. During the remainder of his life, Zābita Khān was continually engaged in repelling the attacks of the Sikhs, who could never forgive him for his reconciliation with the imperial party. Under his son, Ghulām Kādir (1785), the District enjoyed comparative tranquillity. The Sikhs were firmly held in check, and a strong government was established over the native chieftains.

But upon the death of its last Rohilla prince, who blinded the emperor Shāh Alam II, and was mutilated and killed by Sindhia in 1788, the country fell into the hands of the Marāthās, and remained in their possession until the British conquest. Their rule was very precarious, owing to the perpetual raids made by the Sikhs; and they were at one time compelled to call in the aid of George Thomas, the daring military adventurer, who afterwards established an independent government in Hariāna. The country remained practically in the hands of the Sikhs, who levied blackmail under the pretence of collecting revenue.

After the fall of Alīgarh and the capture of Delhi (1803), a British

force was dispatched to reduce Sahāranpur. Here, for a time, a double warfare was kept up against the Marāthās on one side and the Sikhs on the other. The latter were defeated in the indecisive battle of Charaon (November 24, 1804), but still continued their irregular raids for some years. Organization, however, was quietly pushed forward; and the District enjoyed a short season of comparative tranquillity, until the death of the largest landowner, Rām Dayāl Singh, in 1813. The resumption of his immense estates gave rise to a Gūjar revolt, which was put down before it had assumed serious dimensions. A more dangerous disturbance took place in 1824. A confederacy on a large scale was planned among the native chiefs, and a rising of the whole Doāb might have occurred had not the premature eagerness of the rebels disclosed their designs. As it was, the revolt was only suppressed by a sanguinary battle, which ended in the total defeat of the insurgents and the fall of their ringleaders.

From that period till the Mutiny no events of importance disturbed the quiet course of civil administration in Sahāranpur. News of the rising at MEERUT was received early in May, 1857, and the European women and children were immediately dispatched to the hills. Measures were taken for the defence of the city, and a garrison of European civil servants established themselves in the Magistrate's house. The District soon broke out into irregular rebellion; but the turbulent spirit showed itself rather in the form of internecine quarrels among the native leaders than of any settled opposition to British government. Old feuds sprang up anew; villages returned to their ancient enmities; bankers were robbed, and money-lenders pillaged; yet the local officers continued to exercise many of their functions, and to punish the chief offenders by ordinary legal process. On the 2nd of June a portion of the native infantry at Sahāranpur city mutinied and fired upon their officers, but without effect. Shortly afterwards a small body of Gurkhas arrived, by whose assistance order was partially restored. As early as December, 1857, it was found practicable to proceed with the regular assessment of the District, and the population appeared to be civil and respectful. In fact—thanks to the energy of its District officers—the Mutiny in Sahāranpur was merely an outbreak of the old predatory anarchy, which had not yet been extirpated by our industrial régime.

When the Eastern Jumna Canal was being excavated in 1834 the site of an old town was discovered, 17 feet below the surface, at Behat, 18 miles from Sahāranpur city[1]. Coins and other remains prove its occupation in the Buddhist period. The three towns of Hardwār, Kankhal, and Māyāpur on the Ganges have been sacred places of the Hindus for countless years. Muhammadan rule is commemorated by

[1] *Journal, Asiatic Society of Bengal*, vol. iii, pp. 43 and 221.

tombs and mosques at several places, among which may be mentioned Manglaur, Gangoh, and Faizābād. Sarsāwā is an ancient town, with a lofty mound, once a strong brick fort. The District contains two celebrated Muhammadan shrines: that of Pīrān Kaliār, a few miles from Roorkee; and the birthplace of Gūgā or Zāhir Pīr, at Sarsāwā. Both are also reverenced by Hindus, and the cult of the latter is popular throughout Northern India.

Population.

In 1901 there were 18 towns and 1,628 villages. The population at each Census in the last thirty years has been: (1872) 884,017, (1881) 979,544, (1891) 1,001,280, and (1901) 1,045,230. The District is divided into four *tahsīls*—Sahāranpur, Deoband, Roorkee, and Nakūr—the head-quarters of each bearing the same name. The chief towns are the municipalities of Sahāranpur, the head-quarters of the District, Hardwār, and Deoband. The following table shows the principal statistics of the District in 1901:—

Tahsīl.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Sahāranpur	619	1	497	334,681	541	+ 7·1	8,179
Deoband	385	3	311	220,152	572	+ 7·1	3,696
Roorkee	796	6	426	286,903	360	− 1·2	9,529
Nakūr	428	8	394	203,494	475	+ 5·6	4,385
District total	2,228	18	1,628	1,045,230	469	+ 4·4	25,789

Hindus form 65 per cent. of the total, and Muhammadans 34 per cent., the latter being a very high proportion, peculiar to the northern part of the plains. The District supports 469 persons per square mile, and the density is thus slightly higher than the average of the Provinces (445). Between 1891 and 1901 the population increased by 4·4 per cent., the famine of 1896–7 having had little effect. The principal language is Western Hindī, which is spoken by more than 99 per cent.

The most numerous Hindu caste is that of the Chamārs (leather-workers and labourers), 204,000. Brāhmans number 43,000; Rājputs, 46,000; and Baniās, 28,000. Money-lenders have acquired a very large share in the land of the District. The best cultivating castes are the Jāts (15,000), Mālīs (28,000), Sainīs (16,000), and Tagās (15,000); while the Gūjars, who are graziers as well as cultivators and land-holders, number 51,000. Kahārs (41,000) are labourers, *pālkī*-bearers, and fishermen. Among castes not found in all parts of the Provinces may be mentioned the Tagās, who claim to be Brāhmans; the Sainīs, Gūjars, Jāts, and Kambohs (3,000), who inhabit only the western

Districts; and the Banjārās (6,000), who chiefly belong to the submontane tract. The criminal tribes, Hābūrās (824) and Sānsiās (585), are comparatively numerous in this District. A very large proportion of the Muhammadan population consists of the descendants of converts from Hinduism. The three tribes of purest descent are: Saiyids, 8,000; Mughals, 2,000; and Pathāns, 16,000. Shaikhs, who often include converts, number 28,000. On the other hand, Muhammadan Rājputs number 23,000 and Gūjars, 20,000; Telis (oil-pressers and labourers), 49,000; Julāhās (weavers), 45,000; and Gārās, 45,000; while the number of the lower artisan castes professing Islām is also considerable. Gārās and Jhojhās (12,000) are peculiar to the west of the Provinces. The proportion of agriculturists (44 per cent.) is low, owing to the large number of landless labourers (14 per cent.) and artisans. Cotton weavers form 4 per cent. of the total population.

Out of 1,617 native Christians in 1901, more than 1,100 were Methodists, 200 were Anglicans, 250 Presbyterians, and 53 Roman Catholics. The American Presbyterian Mission commenced work in 1835, the Society for the Propagation of the Gospel in 1855, and the American Methodist Episcopal Mission in 1874.

Agriculture.

Excluding the jungle tracts immediately under the Siwāliks, the District may be divided into two main tracts: the uplands in the centre, and the low-lying land or *khādar* on the banks of the great rivers. A feature of even greater importance is the possibility of canal-irrigation, and generally speaking it may be said that cultivation is most careful where irrigation is available. It is inferior in the unprotected uplands, and worst in the *khādar* and submontane tracts. There are two harvests as usual, the autumn or *kharīf* and the spring or *rabi*.

The District presents no peculiarity of tenures. Out of 2,500 *mahāls*, 900 are *bhaiyāchārā*, 900 *pattīdāri*, and 700 *zamīndāri*. The main agricultural statistics according to the village papers are shown below for 1903-4, in square miles:—

Tahsil.	Total.	Cultivated.	Irrigated.	Cultivable waste.
Sahāranpur	619	370	51	30
Deoband	385	320	112	20
Roorkee	796	369	38	58
Nakūr	428	306	84	70
Total	2,228	1,365	285	178

The area, in square miles, under each of the principal food-grains in 1903-4 was: wheat, 553; rice, 204; gram, 203; maize, 126; *bājra*, 127; and barley, 55. Other important crops are sugar-cane, 64; and cotton, 26.

The great features in the agriculture of the District are the enormous extension of rice cultivation, especially in the Nakūr, Deoband, and Roorkee *tahsīls*; and the increasing area under the more valuable crops—wheat, barley, and sugar-cane. The area under cotton fluctuates, but is not increasing. Very small amounts are ordinarily advanced under the Agriculturists' Loans Act. Between 1891 and 1903 the total advances amounted to half a lakh, but Rs. 34,000 of this was lent in the famine year 1896-7. Advances under the Land Improvement Loans Act are still smaller. Much has been done to improve the drainage, especially in the Jumna and Ganges *khādars*, by straightening and embanking streams. In 1880 a new branch of the Ganges Canal was opened, which serves the Deoband *tahsīl*.

There is no local breed of cattle, and the animals used are either imported, or of the inferior type common in the Provinces. The breed of horses in the south of the District was formerly good, and in 1842 a stud farm was opened at Sahāranpur city. For many years there was a considerable sale of horses at the Hardwār fair; but this has almost ceased, and the Sahāranpur farm is now a dépôt for training imported remounts. Government stallions are, however, maintained at several places in the District. Mule-breeding has been tried, and there are several donkey stallions; but the operations have not been very successful.

Of the total area under cultivation in 1903-4, the area irrigated from canals was 201 square miles, or 15 per cent. Wells irrigated 75 square miles, and other sources 9. The canal-irrigation is supplied by the EASTERN JUMNA and UPPER GANGES CANALS, both of which start in this District. The former irrigates about 130 square miles in the Nakūr, Deoband, and Sahāranpur *tahsīls*; and the latter about 75 square miles in Deoband, Sahāranpur, and Roorkee. Well-irrigation is important only in Nakūr. Up to 1880 the area irrigated from the Ganges Canal in this District was small, but the construction of the Deoband branch between 1878 and 1880 has enabled a larger area to be watered. There is a striking difference in the methods of irrigation from wells. East of the Hindan water is raised in a leathern bucket, as in most parts of the Provinces, while to the west the Persian wheel is used.

The total area of the forests is 295 square miles. Most of this area is situated on the slopes of the Siwāliks or in the tract along the foot of the hills; but there are also Reserves on the islands in the Ganges below Hardwār, and in the centre of the Roorkee *tahsīl* south of Hardwār. The forests on the hills, with an area of nearly 200 square miles, are chiefly of value as grazing and fuel reserves and as a protection against erosion; but in the submontane tract *sāl* timber may in time become valuable. In 1903-4 the total forest revenue was

Rs. 45,000, of which Rs. 11,000 was derived from timber and bamboos, the other receipts being chiefly for firewood, charcoal, grazing, and minor products.

The mineral products are insignificant. In the middle and southern portions, *kankar* or nodular limestone is obtained a few feet below the surface, and block *kankar* is occasionally found. To the north the substratum consists of shingle and boulders, gradually giving place to sandstone, which appears at the surface in the Mohan pass. Stone hard enough for building purposes is scarce, and Sir Proby Cautley was obliged to use brick largely in the magnificent works on the upper course of the Ganges Canal. The houses at Hardwār and Kankhal are often constructed of pieces of stone carefully selected; but the quantity obtained is not large enough to defray the expense of carriage to a long distance, and building stone is generally obtained from Agra.

Trade and communications.

The most important indigenous industry is that of cotton-weaving, which supports 46,000 persons, or 4 per cent. of the population. Next to this comes wood-carving, which is very flourishing, though the increased demand has led to a deterioration in style and finish. Less important industries are cloth-dyeing and printing, cane and woodwork, and glass-blowing in country glass. In 1903 there were two cotton-ginning and pressing factories, one rice-mill, and an indigo factory. There are also five Government factories of some importance: namely, the North-Western Railway workshops at Sahāranpur city, the Canal foundry, the Sappers and Miners workshops, and the Thomason College Press and workshops, the last four being all at Roorkee.

The opening of new railways has greatly developed trade; and the District does a large export business with the Punjab and Karāchi by the North-Western Railway, with Bombay via Ghāziābād, and with Calcutta by the Oudh and Rohilkhand Railway. Wheat and oilseeds are the articles most largely exported, and salt, metals, and piece-goods the chief imports.

The first railway opened was the North-Western Railway in 1869, which enters the District at the middle of the southern boundary and passes north-west through Sahāranpur city. In 1886 the Oudh and Rohilkhand Railway main line was extended through Roorkee to Sahāranpur, its terminus, and a branch line was opened from Laksar to Hardwār, the great pilgrim centre. The latter was extended by the Hardwār-Dehra (Company) line in 1900, and now conveys the whole of the passenger and most of the goods traffic to the hill station of Mussoorie. A light railway is being constructed from Shāhdara, in Meerut District, to Sahāranpur.

The total length of metalled roads is 111 miles, and of unmetalled roads 415 miles. Except 98 miles of metalled roads, the whole of

these are maintained from Local funds. There are avenues of trees along 176 miles. From Sahāranpur two roads lead north across the Siwāliks and the valley of the Dūn. The road to CHAKRĀTĀ is still a military route, though maintained by the civil authorities, but that to Dehra has lost its importance. The old road from the Doāb to the Punjab runs alongside the North-Western Railway, which has largely superseded it. The Jumna and Ganges *khādar* are not well supplied with roads, but the latter is generally accessible from the Oudh and Rohilkhand Railway. The Forest department maintains a road along the foot of the Siwāliks, and there are good roads along the canal banks. The Ganges Canal is navigable, and carries timber and bamboos to Meerut, but the Jumna Canal has no navigable channels.

Famine.

Sahāranpur has suffered from famine, but not so severely as the Districts south of it. Remissions of revenue were made in 1837-8. In 1860-1 work was provided on a road from Roorkee to Dehra, at a cost of $2\frac{1}{2}$ lakhs, besides an expenditure of Rs. 59,000 on other relief. It was noted, however, that the great canals had mitigated the scarcity, and there was an average spring crop in two-fifths of the District. In 1868 and 1877 the failure of the rains caused distress, but it was not so marked as in other Districts. During 1896-7, when famine raged elsewhere, the high prices of grain caused exceptional prosperity to agriculturists in the tracts protected by canals and wells; and though test works were opened, no workers came to them.

Administration.

The District is divided into four *tahsīls* and fifteen *parganas*. The Roorkee *tahsīl* forms a subdivision usually in charge of a Joint-Magistrate residing at Roorkee, assisted by a Deputy-Collector. A *tahsīldār* is stationed at the head-quarters of each *tahsīl*. The remaining members of the District staff—namely, the Collector, three Assistants with full powers, and one Assistant with less than full powers—reside at Sahāranpur. There are also officers of the Canal department.

The *tahsīls* of Sahāranpur and Nakūr are in the jurisdiction of the Munsif of Sahāranpur, and the rest of the District under the Munsif of Deoband. There are also a Subordinate Judge and one Assistant Judge. Civil appeals from Dehra Dūn District (except the Chakrātā *tahsīl*), and also from the District of Muzaffarnagar, lie to the District Judge of Sahāranpur, who likewise sits as Sessions Judge for the three Districts. Crime is of the ordinary nature. Cattle-theft is more than usually common, owing to the number of Gūjars, who are notorious cattle-lifters. Infanticide was formerly very prevalent; but the number of families proclaimed has fallen considerably, and the annual cost of special police is now only Rs. 600, as compared with Rs. 4,000 in 1874.

The District was acquired in 1803 and at first formed part of a large

area called Sahāranpur, which also included Muzaffarnagar and part of Meerut. This was divided into a northern and southern part. The District as it exists at present was formed in 1826. At annexation a large portion of it was held at a fixed revenue by a few powerful chiefs, whose occupation dated from the troubled times of Rohilla and Marāthā government; and these tenures were not interfered with till the death of the grantees, between 1812 and 1815. Elsewhere the usual system of short settlements based on estimates of the value of crops was in force, and engagements for the payment of revenue were taken from the actual occupiers of the soil. A quinquennial settlement made on the same principles in 1815-6 was extended by two further terms of five years each. The next settlement was based on a chain survey, and on more accurate calculations of out-turn from which fair rents were estimated, or on the value of the share of produce actually taken by the landlords. Produce rents were the rule and soil rents were unknown. In 1859 a new assessment was commenced. This was based on a plane-table survey; but the proposals were not accepted, and the assessment was revised between 1864 and 1867. Standard rent rates were obtained by classifying villages according to their agricultural condition, and ascertaining the average of the cash rents, or by calculating soil rates. The latest revision was commenced in 1887, and was largely made on rent-rolls corrected in the usual way. Cash rents existed in less than half of the total area, and the valuation of the grain-rented area was difficult. The revenue fixed was 14·3 lakhs, or 47 per cent. of the corrected rental 'assets.' The incidence was Rs. 1-14 per cultivated acre and Rs. 1-9 per assessable acre, the rates varying in different *parganas* from R. 1 to Rs. 2-2.

The total receipts from land revenue and from all sources have been, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	12,07	13,05	15,33	15,25
Total revenue . .	15,22	20,31	25,03	25,34

There are four municipalities—SAHĀRANPUR, HARDWĀR UNION, DEOBAND, and ROORKEE—and fourteen towns administered under Act XX of 1856. The population of five of the latter—GANGOH, MANGLAUR, RĀMPUR, AMBAHTĀ, and NAKŪR—exceeds 5,000. Outside these places, local affairs are administered by the District board. In 1903-4 the income and expenditure of the board amounted to 1·2 lakhs each, the expenditure on roads and buildings being Rs. 40,000.

The police of the District are supervised by a Superintendent and two Assistants, and five inspectors. There are 22 police stations; and the total force comprises 97 sub-inspectors and head constables

and 446 men, besides 373 municipal and town police, and 2,035 rural and road police. The District jail, in charge of the Civil Surgeon, had an average of 306 prisoners in 1903.

Only 2·5 per cent. of the population (4·5 males and 0·2 females) can read and write, compared with a Provincial average of 3·1 per cent. The proportion is distinctly higher in the case of Hindus than of Musalmāns, and the Sahāranpur and Roorkee *tahsīls* are better than the other two. In 1880–1 there were 157 schools with 5,000 pupils, exclusive of private and uninspected schools. In 1903–4, 198 public institutions contained 8,158 pupils, of whom 581 were girls, besides 429 private schools with 6,198 pupils. Of 198 schools classed as public, 4 were managed by Government, and 117 by the District and municipal boards. Of the total number of pupils, 12,000 were in primary classes. The expenditure on education was 2·6 lakhs, of which 1·9 lakhs was met from Provincial revenues, Rs. 39,000 from Local funds, and Rs. 9,000 from fees. The greater part of the Government expenditure is on the Roorkee College. There is a famous school of Arabic learning at Deoband.

There are 15 hospitals and dispensaries, with accommodation for 80 in-patients. In 1903 the number of cases treated was 107,000, of whom 2,500 were in-patients, and 8,000 operations were performed. The total income was Rs. 21,000, chiefly from Local funds.

The number of persons vaccinated in 1903–4 was 37,000, or 35 per 1,000 of population. Vaccination is compulsory only in the municipalities and the cantonment of Roorkee.

[*District Gazetteer* (1875, under revision); L. A. S. Porter, *Settlement Report* (1891).]

Sahāranpur Tahsīl.—Northernmost *tahsīl* of Sahāranpur District, United Provinces, lying between 29° 52′ and 30° 24′ N. and 77° 26′ and 77° 53′ E., with an area of 619 square miles. It is divided into four *parganas*: Faizābād, Muzaffarābād, Sahāranpur, and Haraura. The boundaries are artificial on the south and east, while the Jumna flows on the west, and the Siwāliks form the northern boundary. The population rose from 312,498 in 1891 to 334,681 in 1901. There are 497 villages and one town, SAHĀRANPUR (population, 66,254), the head-quarters of the District and *tahsīl*. In 1903–4 the demand for land revenue was Rs. 4,26,000, and for cesses Rs. 69,000. The rainfall is 38 inches, being slightly above the District average. In the north is a strip of forest land. Of 370 square miles under cultivation in 1903–4, 51 were irrigated. Irrigation is chiefly supplied by the Eastern Jumna Canal, which runs through the western portion. Much has been done to improve the drainage of the north-western portion, which is intersected by a network of small streams.

Sahāranpur City.—Head-quarters of the District and *tahsīl* of

the same name in the United Provinces, situated in 29° 57′ N. and 77° 33′ E., 988 miles by rail from Howrah and 1,069 from Bombay. It lies on the old road from the Doāb to the Punjab, and is the northern terminus of the Oudh and Rohilkhand Railway main line, which here meets the North-Western Railway. The population has risen in the last thirty years: (1872) 43,844, (1881) 59,194, (1891) 63,194, and (1901) 66,254. More than half the total are Musalmāns (37,614). The history of the city has been given in that of the District. It was founded about 1340, and derives its name from a Musalmān saint, Shāh Haran Chishti. In Akbar's time it was the capital of a *sarkār*, and was sufficiently important to be constituted a mint town.

The city lies in a low moist situation on both sides of the Dhamaula Nadī, and is also traversed by the Pandhoī Nadī. In 1870 both of these streams were improved and deepened, with marked benefit to the public health. In 1900 the main city drain was paved and cunetted, and a scheme for flushing all drains is under consideration. About three-fourths of the houses are built of brick, and trade is increasing. The opening of the North-Western Railway in 1869 gave the first impetus, and the construction of the Oudh and Rohilkhand line in 1886 has still further increased the importance of Sahāranpur. The place has, however, lost the traffic to the hill station of Mussoorie, which now passes by the Hardwār-Dehra Railway, opened in 1900. Besides the ordinary District staff, the officer in charge of the Botanical Survey of Upper India and the Executive Engineer, upper division, Eastern Jumna Canal, reside here. Sahāranpur also has large railway workshops, which employed 241 hands in 1903, and in the same year two cotton-gins employed 158 and a rice-mill 92 hands. Wood-carving is an important industry, and really good work can be obtained. The Government Botanical gardens, founded in 1817 on the site of an old garden of the Rohillas, covering an area of 156 acres, sell large quantities of fruit trees, strawberry plants, timber, ornamental trees and shrubs, and flower and vegetable seeds, besides supplying drugs to Government. The former stud farm, with an area of 2,413 acres, is now a reserve remount dépôt, at which imported horses are trained and acclimatized for the army. The American Methodist and Presbyterian Churches have missions here, and there is a fine Muhammadan mosque built on the model of the Jāma Masjid at Delhi.

Sahāranpur was constituted a municipality in 1867. The income and expenditure during the ten years ending 1901 averaged Rs. 62,000 and Rs. 59,000. In 1903-4 the income was Rs. 93,000, chiefly derived from octroi (Rs. 65,000); and the expenditure was Rs. 77,000.

Sāharwāl Doāb.—*Doāb* in the Punjab. *See* BIST JULLUNDUR DOĀB.

Sahaspur.—Town in the Dhāmpur *tahsīl* of Bijnor District, United

Provinces, situated in 29° 7′ N. and 78° 37′ E., on the Oudh and Rohilkhand Railway. Population (1901), 5,851. It was the head-quarters of a *mahāl* or *pargana* in Akbar's time. The town is extremely dirty; and, though most of its inhabitants are Musalmāns, it swarms with pigs. There is a fine *sarai* used by Hindu pilgrims on their way to Hardwār. The only industry is the weaving of cotton cloth of good quality. A primary school has 50 pupils.

Sahaswān Tahsīl.—*Tahsīl* of Budaun District, United Provinces, comprising the *parganas* of Sahaswān and Kot, and lying between 27° 57′ and 28° 20′ N. and 78° 30′ and 79° 4′ E., with an area of 454 square miles. Population increased very slightly, from 193,070 in 1891 to 193,628 in 1901. There are 328 villages and two towns: SAHASWĀN (population, 18,004), the *tahsīl* head-quarters, and BILSĪ (6,035). The demand for land revenue in 1903–4 was Rs. 2,33,000, and for cesses Rs. 29,000. The density of population, 426 persons per square mile, is the lowest in the District. The *tahsīl* contains a fertile stretch of rich upland soil watered by the Sot river, in the tract known as Katehr; but this is mostly held by impoverished and quarrelsome Rājputs, and it also suffers from defective drainage. South of the Katehr a large area is occupied by a sandy ridge, 4 or 5 miles wide, and poor in quality; and beneath this the *khādar* stretches away to the Ganges, which forms the south-western boundary. The *khādar* is crossed by the Mahāwa, which is gradually scouring out a larger bed, and in years of heavy rainfall brings down disastrous floods, increased by the spill-water from the Ganges. Portions of the *khādar* are extremely fertile, but the tract is liable to great vicissitudes. In 1903–4 the area under cultivation was 338 square miles, of which 54 were irrigated, mostly from wells.

Sahaswān Town.—Head-quarters of the *tahsīl* of the same name in Budaun District, United Provinces, situated in 28° 4′ N. and 78° 45′ E., near the left bank of the Mahāwa, 24 miles west of Budaun town by metalled road. Population (1901), 18,004. According to tradition, the town was founded by Sahasra Bāhu, a king of SANKĪSĀ in Farrukhābād District, who built a fort now represented by an earthen mound. The *Ain-i-Akbarī* records this place as the chief town of a *mahāl* or *pargana*. In 1824 Sahaswān became the head-quarters of a British District, which were removed to Budaun owing to the unhealthiness of the site. The town is really a collection of scattered villages, standing at the point where the sandy ridge of the District meets the Ganges *khādar*. It contains a *tahsīlī*, a *munsifī*, and a dispensary. A municipality was constituted in 1872. During the ten years ending 1901 the income and expenditure averaged Rs. 8,000. In 1903–4 the income was Rs. 14,000, chiefly from a tax on circumstances and property (Rs. 6,000); and the expenditure was Rs. 13,000. The

town has little commercial importance; but perfumes are manufactured, especially from the *keora* or screw pine which grows in the neighbourhood. The middle school has 160 pupils, and the municipality manages 6 schools and aids 3 others with a total attendance of 390.

Sahatwār (also called Mahatwār and Mahatpāl).—Town in the Bānsdīh *tahsīl* of Ballia District, United Provinces, situated in 25° 50′ N. and 84° 19′ E., on the Bengal and North-Western Railway. Population 1901), 10,784. The town is said to have been founded by one Mahant Billeshar Nāth Mahādeo, and is the head-quarters of the Kinwār Rājputs. It is administered under Act XX of 1856, with an income of about Rs. 1,400. Sahatwār has a considerable trade in the collection of raw produce and sugar for export, and in the distribution of cotton, salt, tobacco, and English piece-goods. There is also a small manufacture of indigo and cotton cloth. The town school has about 80 pupils.

Sahāwar.—Town in the Kāsganj *tahsīl* of Etah District, United Provinces, situated in 27° 48′ N. and 78° 51′ E., near the Ganeshpur station on the Cawnpore-Achhnerā Railway. Population (1901), 5,079. The town was founded by Rājā Naurang Deo, a Chauhān Rājput, who called it Naurangābād after his own name. On being attacked by the Musalmāns, the Rājā fled to Sirhpura, and the inhabitants who remained were forcibly converted to Islām. Shortly afterwards Naurang, assisted by the Rājā and the people of Sirhpura, expelled the Musalmāns, and changed the name to Sahāwar. The town is administered under Act XX of 1856, with an income of about Rs. 700. There is very little trade. The primary school has about 80 pupils.

Sahet Mahet.—Ancient ruins in Gondā and Bahraich Districts, United Provinces. *See* SET MAHET.

Sāhibganj (1).—Town in the Rājmahāl subdivision of the Santāl Parganas District, Bengal, situated in 25° 15′ N. and 87° 38′ E., on the Ganges, and on the loop-line of the East Indian Railway. Population (1901), 7,558. At the time of the Census a severe outbreak of plague had led to a partial evacuation of the town, and the true population is probably about 12,000. Owing to its favourable position on the railway and river, Sāhibganj has become a great entrepôt for trade. Local produce is received by river from the trans-Gangetic tracts of Mālda, Purnea, and North Bhāgalpur, while European goods are brought by rail from Calcutta for distribution to those Districts. Sāhibganj was constituted a municipality in 1883. The income during the decade ending 1901–2 averaged Rs. 15,000, and the expenditure Rs. 14,000. In 1903–4 the income was Rs. 21,000, mainly derived from a tax on houses and lands and a conservancy rate; and the expenditure was Rs. 18,000.

Sāhibganj (2).—Part of PADRAUNĀ TOWN, in Gorakhpur District, United Provinces.

Sāhibgarh (or Pail).—Northern *tahsīl* of the Amargarh *nizāmat*, Patiāla State, Punjab, lying between 30° 23′ and 30° 56′ N. and 75° 59′ and 76° 35′ E., with an area of 278 square miles. The population in 1901 was 115,391, compared with 112,540 in 1891. The *tahsīl* contains the town of PAIL or Sāhibgarh (population, 5,515), the head-quarters; and 197 villages. The land revenue and cesses in 1903-4 amounted to 3·1 lakhs.

Sahiswān.—*Tahsīl* and town in Budaun District, United Provinces. *See* SAHASWĀN.

Sāhiwāl.—Town in the District and *tahsīl* of Shāhpur, Punjab, situated in 31° 59′ N. and 72° 20′ E., on the left bank of the Jhelum, 22 miles south of Shāhpur town on the road from Bhera to Jhang. Population (1901), 9,163. The town has a brisk trade in cotton, grain, and *ghī* with Multān and Sukkur; and the extension of the Lower Jhelum Canal is giving renewed prosperity to the impoverished Baloch who own the country round. The municipality was created in 1867. The income during the ten years ending 1902-3 averaged Rs. 9,200, and the expenditure Rs. 8,800. In 1903-4 the income amounted to Rs. 10,500, chiefly from octroi; and the expenditure was Rs. 10,100. The town possesses an Anglo-vernacular middle school, maintained by the municipality, and a Government dispensary.

Sāhuka.—Petty State in KĀTHIĀWĀR, Bombay.

Sahyādri.—The Sanskrit name given to the great mountain range otherwise known as the WESTERN GHĀTS.

Sahyādriparbat.—Hill range in Bombay, Berār, and Hyderābād. *See* AJANTA.

Sai.—River of the United Provinces, rising in Hardoī District between the Gumtī and the Ganges (27° 46′ N., 80° 9′ E.). It flows in a tortuous south-easterly direction through the Oudh Districts of Unao, Rāe Barelī, and Partābgarh, and enters the Province of Agra in Jaunpur District, falling into the Gumtī ten miles below Jaunpur city after a course of over 350 miles. In the rains small boats can pass up as high as Rāe Barelī. The drainage falling into the Sai is chiefly from the north, and its bed is usually too deep to afford irrigation.

Saidapet Tāluk.—*Tāluk* and subdivision of Chingleput District, Madras, lying between 12° 51′ and 13° 14′ N. and 80° 0′ and 80° 20′ E., and touching the Bay of Bengal, with an area of 342 square miles. It surrounds on all sides but the east Madras City, a fact which has much influence upon its people and conditions. The population in 1901 was 262,478, compared with 224,472 in 1891, the increase of nearly 17 per cent. being due to its including several villages which are really suburbs of Madras. The density, 767 persons per square mile, is

higher than in any other *tāluk* in the District. The demand on account of land revenue and cesses in 1903–4 amounted to Rs. 3,44,000. It contains 6 towns and 255 villages. SAIDAPET (population, 14,254) is the head-quarters of the District and of the *tāluk*. The other five towns are SEMBIEM (population, 17,567), TIRUVOTTIYŪR (15,919), ST. THOMAS'S MOUNT (15,571), POONAMALLEE (15,323), and PALLĀVARAM (6,416). The Korttalaiyār, the Cooum, and the Adyar rivers flow through the *tāluk*. Its general appearance is flat and uninteresting; but here and there occur hills of no great elevation, on many of which are perched either a temple or a bungalow, which serve to relieve the monotony of the aspect.

Saidapet Town.—Head-quarters of the *tāluk* of the same name and of Chingleput District, Madras, situated in 13° 2′ N. and 80° 13′ E., 5 miles from Fort St. George. Population (1901), 14,254. The District head-quarters have been located here since 1859. The Collector's office and treasury are in a building called Home's Gardens, which has of late been much enlarged and improved, and which also contains the offices of a Deputy-Collector and of the *tahsīldār* and stationary sub-magistrate. Saidapet is practically a suburb of Madras, and as the South Indian line connects it with the business quarters of that city it is the residence of many officials and others. Weaving and dyeing are its chief industries. The handsome Marmalong bridge across the Adyar river, built in the early days of Madras by an Armenian merchant named Petrus Uscan, connects the place with St. Thomas's Mount. This has an endowment in Government securities, the interest on which is utilized for its repair and for the upkeep of the steps leading up the Mount.

The most notable institutions in Saidapet are the Agricultural College and the Teachers' College. The latter is under the management of a European principal, aided by a staff of assistants, and is designed to instruct persons who are taking up teaching as a profession in the theory and practice of that art. A high school is attached to give the students an opportunity of practising, and there is also a well-equipped gymnasium. The Agricultural College originated as a model farm, established in 1865, during the Governorship of Sir William Denison. In this many important agricultural experiments were made, some of which produced encouraging results, indicating the general directions in which improvements might be effected in the agriculture of the country. Attention was given to subsoil drainage, improved tillage, the restoration of exhausted soils, the proper utilization of irrigation water, the fertilization of arable soils by the use of lime, saltpetre, oil-cake, poudrette, and other manures available in Southern India but little used by the ryots; the introduction of new crops suited to the climate and adapted for cultivation under an improving agricultural practice; the production of live fences to afford protection from cattle, shelter

from wind, and fuel; the introduction of water-lifts, barn machines, carts, ploughs, cultivators, cattle-houses, reaping-knives, &c., of improved construction; and the improvement of the live-stock of the country by careful feeding and breeding and by acclimatizing new breeds. In 1876 a school of agriculture was opened to extend the practical utility of the experiments. The institution was later raised to the status of a college, and a handsome building and museum have been erected. A chemical laboratory is attached to it and a veterinary hospital has been opened. The college is intended to afford instruction to persons who desire to become acquainted with the theory and practice of agriculture, and is under the charge of a principal, a vice-principal, and five assistants. Experimental work at the farm has now been given up, the cropping done being no more than is necessary for educational purposes, but other experimental farms have been established in more suitable localities. The college itself is shortly to be transferred to a more suitable site at Coimbatore.

Saidpur Tahsīl.—Western *tahsīl* of Ghāzīpur District, United Provinces, comprising the *parganas* of Saidpur, Bahriābād, Khānpur, and Karanda, and lying north of the Ganges, between 25° 28′ and 25° 46′ N. and 83° 4′ and 83° 26′ E., with an area of 297 square miles. Population fell from 206,615 in 1891 to 182,320 in 1901. There are 617 villages and two towns, of which SAIDPUR, the *tahsīl* head-quarters, has a population of 4,260. The demand for land revenue in 1903–4 was Rs. 2,75,000, and for cesses Rs. 39,000. The density of population, 614 persons per square mile, is the lowest in the District. Besides the Ganges and Gumtī, the chief drainage channel is the Gāngī, which flows from north-west to south-east. In the south-east corner lies a fine stretch of rich alluvial land, while towards the north the soil is a heavy clay, where rice is grown. Elsewhere the ordinary loam is found. The area under cultivation in 1903–4 was 186 square miles, of which 87 were irrigated, chiefly from wells.

Saidpur Town (1).—Head-quarters of the *tahsīl* of the same name in Ghāzīpur District, United Provinces, situated in 25° 32′ N. and 83° 13′ E., on the Bengal and North-Western Railway. Population (1901), 4,200. Nothing is known of the history of Saidpur, but it contains remains of great interest. In the town itself are two Musalmān *dargāhs* constructed from Hindu or Buddhist pillars, if they were not actually *chaityas* attached to a *vihāra* or monastery. Large mounds exist in the neighbourhood, which undoubtedly conceal ancient buildings. Saidpur is administered under Act XX of 1856, with an income of about Rs. 1,400. There is a considerable trade in oilseeds, tobacco, cotton, hides, and *sajjī*, or carbonate of soda. The town also contains a dispensary, and a school with about 140 pupils.

[*Journal, Asiatic Society of Bengal*, vol. xxxiv, pp. 80–2.]

Saidpur Town (2).—Town in the Nilphāmāri subdivision of Rangpur District, Eastern Bengal and Assam, situated in 25° 47′ N. and 88° 54′ E. Population (1901), 5,848. It is the head-quarters of the northern section of the Eastern Bengal State Railway, and contains large railway workshops and jute-presses. A company of the Eastern Bengal State Railway Volunteer Corps, 157 strong, has its head-quarters here.

Sailāna State.—One of the mediatized States of the Central India Agency, under the Political Agent in Mālwā. The State has an area of about 450 square miles, of which, however, about half has been alienated in land grants. Owing to the inextricable mingling of its territory with that of Ratlām, no very accurate figure can be arrived at. The State is called after the capital town which stands at the foot (*ānana*, lit. 'mouth') of the hills (*shaila*), whence it derives its name of Sailāna. Scattered portions of Sailāna touch the Gwalior, Indore, Dhār, Jhābua, Jaorā, Bānswāra, and Kushalgarh States, of which the two last are in Rājputāna. The only stream of importance is the Mahī, which flows through the western portion of the State.

The chiefs of Sailāna are Rāthor Rājputs of the Ratanāvat branch, an offshoot of the Ratlām house, and till 1730 Sailāna formed a part of Ratlām. In that year Jai Singh, a great-grandson of Ratan Singh, the founder of Ratlām, started an independent State, of which Raotī was the capital. In 1736 he built the present capital of Sailāna. During the settlement of Mālwā in 1819, Rājā Lachhman Singh received, through the mediation of Sir John Malcolm, an agreement on behalf of Daulat Rao Sindhia, by which all interference in the administration of the State by the Gwalior Darbār was prohibited, and he was secured in his possessions on payment of a tribute of Rs. 23,000. The payment of this tribute was transferred to the British Government in 1860. From 1850, the chief, Dule Singh, being a minor, the State was administered by the British authorities, but during the disturbances of 1857 it was entrusted to the late chief's widow, who rendered good service. In 1881 the State abandoned all transit duties on salt, receiving annually from the British Government 100 maunds of salt free of cost. In 1883, however, this compensation was commuted to an annual cash payment of Rs. 412–8. In 1887 an agreement was made between the Ratlām and Sailāna States by which the latter levies its own customs duties, compensating Ratlām for relinquishing its right to levy customs dues in Sailāna by an annual payment of Rs. 6,000. In the same year all transit dues, except those on opium, were abolished. The present chief, Rājā Jaswant Singh, succeeded, by adoption, in 1895. He has done much to improve the financial condition of the State, though the famine of 1899–1900 caused fresh embarrassments. He received the gold Kaisar-i-Hind medal in 1901, and was made a K.C.I.E. in 1904. The territory, as is usual in Rājput

holdings, has been alienated to a considerable extent, ten of the *jāgīrdārs* being Rāthor Rājputs connected with the ruling family. The chief enjoys the titles of His Highness and Rājā, and is entitled to a salute of 11 guns.

The population of the State has varied: (1881) 29,723, (1891) 31,512, and (1901) 25,731. In the latest year Hindus formed 67 per cent. of the total, while Animists (chiefly Bhīls) numbered 6,300, Musalmāns 1,321, and Jains 912. The population decreased by 22 per cent. during the last decade, and now represents a density of 57 persons per square mile. The State contains 96 villages and one town, SAILĀNA (population, 4,255), the capital. About 78 per cent. of the population speak the Mālwī dialect of Rājasthānī, and 15 per cent. Bhīlī. The prevailing castes and tribes are Kunbīs (2,700), Rājputs (2,100), and Bhīls (6,300). Agriculture and general labour support the majority of the inhabitants.

The soil over most of the area is of the high fertility common in Mālwā, bearing excellent crops of all the ordinary grains and also of poppy, which forms one of the most valuable products.

Of the total area of 450 square miles, 123, or 26 per cent., are under cultivation, 5 square miles being irrigable, and the rest 'dry' land. About 38 square miles, or 30 per cent. of the cropped area, are under cereals, 3 under poppy, and 3 under cotton. Of the uncultivated area, 65 square miles, or 14 per cent., are capable of cultivation, 39 are forest, and the rest is irreclaimable waste. Pasturage is ample in good years. In former days there was a considerable industry in brass-work and the manufacture of dye from the *āl* tree (*Morinda tinctoria*), but the importation of foreign materials has almost entirely killed the latter.

The Baroda-Nāgda section of the Bombay, Baroda, and Central India Railway passes through the State, with stations at Raotī and Bāngrod. A metalled road connects Sailāna town with the Nāmlī station of the Rājputāna-Mālwā Railway, and a section of the Mhow-Nīmach high road passes through the south-western districts of Bhīlpānk and Bāngrod. British post offices are maintained at Sailāna, Bāngrod, and Raotī, and telegraph offices at the railway stations of Raotī and Bāngrod.

For administrative purposes the State is divided into four sections: the chief town and its environs, and the districts of Bhīlpānk, Bāngrod, and Raotī. The chief administers the State assisted by a *dīwān*, and in civil matters has complete control. In criminal cases he exercises the powers of a Sessions Court, but submits for confirmation by the Agent to the Governor-General all sentences of transportation, imprisonment for life, or capital punishment.

The normal revenue amounts to 1·5 lakhs, of which 1·1 lakhs are

derived from the land; Rs. 18,000 from customs; Rs. 21,000 from *tānka* (tribute from feudatory land-holders); and Rs. 412-8 from the British Government in lieu of salt dues relinquished in 1881. The chief heads of expenditure are general administration, including the chief's establishment, Rs. 9,000; military, Rs. 15,000; tribute to British Government, Rs. 23,000 (paid to Sindhia until 1860); Rs. 6,000 to Ratlām, being the share of *sāyar* or customs dues levied in Sailāna.

The incidence of land revenue demand is Rs. 3 per acre of cultivated land and 15 annas per acre of total area. The land revenue system includes the grant of leases to each cultivator for a certain number of years.

The British rupee is the current coin in the State, the *Sālim shāhi* (of Partābgarh) having been disused since 1897. Copper has been minted at Baramāwal and Sailāna, but the former mint was closed in 1881, and it is proposed to close the latter.

The State forces consist of 162 regular cavalry, who form the chief's body-guard, 278 irregular infantry, 5 guns and 15 gunners. The police were regularly organized in 1899. A jail is maintained in Sailāna town. Seven schools are maintained in the State, with an average attendance of 100 pupils. Two dispensaries are kept up.

Sailāna Town (*Salāna*).—Capital of the State of the same name in Central India, situated in 23° 28′ N. and 74° 57′ E., at the foot of the Vindhyas, 1,847 feet above sea-level. Sailāna is 10 miles by metalled road from Nāmlī station on the Rājputāna-Mālwā Railway, and 521 by rail from Bombay. Population (1901), 4,255. The town, which dates from 1736, has no buildings of any note except the Rājā's new palace. A dispensary, an inspection bungalow, a British post office, a jail, and a school are situated within its limits.

Saint George, Fort.—The citadel of Madras city. *See* MADRAS CITY.

Sainthiā.—Village in the head-quarters subdivision of Bīrbhūm District, Bengal, situated in 23° 57′ N. and 87° 41′ E., on the East Indian Railway, 119 miles from Howrah. Population (1901), 2,622. The village, which lies on the Mor river, is connected with Sūri by a good road. It is an important trade centre.

Saint Thomas's Mount.—Town and cantonment in the Saidapet *tāluk* of Chingleput District, Madras, situated in 13° N. and 80° 12′ E., 8 miles south of Madras city. Population (1901), 15,571. It is known to the natives as Parangimalai, or 'Europeans' hill.' The Mount after which the place is named is composed of greenstone and syenite, and is ascended by a flight of 200 masonry steps, the work of the Portuguese. On its summit, 220 feet above sea-level, is a curious old Portuguese church dedicated to the Expectation of the Blessed Virgin. It was built by the Portuguese in 1547, over the spot where was found the

celebrated cross attributed to the legendary visit of St. Thomas the Apostle to this part of India. The tradition[1] states that after preaching in Malabar and other places, St. Thomas came to Mylapore, a suburb of Madras; that the Brāhmans there stirred up a tumult against him, and that on December 21, A.D. 68, he was stoned by the crowd and finally thrust through with a spear near the Mount. Lucena gives the following account of the finding of the cross:—

'It was met with on digging for the foundations of a hermitage amid the ruins which marked the spot of the martyrdom of the Apostle St. Thomas. On the face of the slab was a cross in relief, with a bird like a dove over it, with its wings expanded as the Holy Ghost is usually represented when descending on our Lord at His baptism, or on our Lady at her Annunciation. This cross was erected over the altar at the chapel which was built on the new sanctuary.'

Dr. Burnell (*Indian Antiquary*, 1874, p. 313) says:—

'This account is no doubt accurate, for the Portuguese on first visiting the Mount found the Christian church in ruins, and occupied by a native *fakīr*. The description of the slab is also accurate. It does not appear what cause had destroyed the Christian community here, but it probably was owing to the political disturbances attending the war between the Muhammadans of the north and the Hindu kingdom of Vijayanagar.'

Referring to an Italian account (in the seventeenth century) of the cross and the Mount festival, Dr. Burnell continues:—

'The cross is built into the wall behind the altar in a church on the Great Mount, which is served by a native priest under the Goa jurisdiction. An annual festival is held here, which brings a large assemblage of native Christians to the spot, and causes an amount of disorder which the European Catholic clergy of Madras have in vain tried to put down.'

Dr. Burnell considered that the date of the cross tablet and its Pahlevī inscription was probably about the eighth century.

On the plain on the eastern side of the Mount lies the military cantonment bearing the same name. The garrison now consists of two batteries of field artillery and one regiment of native infantry. The cantonment is a pretty place and well kept. In the centre is an open grassy *maidān*, round which cluster the various bungalows and other buildings, including the handsome mess-house of the artillery. The church, which stands at the southern end of the parade ground, is one of the best edifices of its kind in the Presidency.

[1] Discussions of the credibility of this tradition will be found in the *Indian Antiquary*, vol. xxxii; in the *Journal of the Royal Asiatic Society* for April, 1905; and in *India and the Apostle Thomas* (1905), by A. E. Medlycott, Bishop of Tricomia.

St. Thomas's Mount figured in British history long before it was made a cantonment. The battle of the Mount, fought on February 7, 1759, between Lally and Colonel Calliaud, was one of the fiercest struggles of the Franco-British wars in Southern India. It is thus described in the Chingleput *Manual*:—

'Colonel Calliaud had been summoned from the south to assist in raising the siege of Madras. He took post at the Mount, with his right at a deserted little temple at the north-east of the present parade ground, and his left supported by a house called Carvalho's Garden, where he posted four pieces of cannon. His troops included the contingent brought by the Company's partisan Muhammad Yūsuf, and consisted of 2,200 horse, 2,500 foot, and 6 cannon. Of these, however, only 1,500 natives, 80 Europeans, and 12 artillerymen were possessed of the slightest discipline. Lally's forces aggregated 2,600, half of whom were Europeans, and all disciplined. He had, besides, 8 guns, possessing a great superiority in weight of metal. The fight lasted from early morning till 5 p.m., when the enemy, to Colonel Calliaud's intense relief, retreated. The latter had ammunition sufficient to have lasted for about a couple of minutes more.'

On March 20, 1769, Haidar Alī, who had marched within 5 miles of Madras, met here Mr. Dupré, the senior Member of Council, and here the inglorious treaty of April 2 was signed. In 1774, at the suggestion of Col. James, the Mount became the head-quarters of the Madras Artillery.

'The garrison of the Mount formed the major part of the force (under Sir Hector Munro) that ought to have saved Baillie in 1780. During its absence, only five companies of sepoys and four guns had been left for the protection of the Mount, and a temporary earthwork was raised to strengthen the place against attack. This has long been levelled, but a slight depression crossing the plain midway between Pallāvaram and the Mount indicates the position of what went by the name of the Marāthā Ditch.'

Saint Thomé.—Suburb of MADRAS CITY.

Saiyidpur.—*Tahsīl* and town in Ghāzīpur District, United Provinces. *See* SAIDPUR.

Sajjangarh.—Fort in Sātāra District, Bombay. *See* PARLI.

Sakesar (*Sukesar*).—Hill in the Khushāb *tahsīl* of Shāhpur District, Punjab, situated in 31° 33′ N. and 71° 58′ E., 25 miles east of Miānwāli town, and the highest peak in the Salt Range. It is a fine grassy hill, forming the terminal point in which two divergent spurs of the range reunite. Upon its summit stands the sanitarium for Shāhpur, Attock, and Miānwāli, at an elevation of 5,010 feet above sea-level, with plenty of excellent building space available. Wild olive-trees are abundant, and the oak thrives well. According to daily meteorological observations between the middle of June and the middle of October.

1866, the average temperature was 75°, or one degree less than summer heat in England. The climate of Sakesar, and indeed of the whole of the higher parts of the Salt Range, is believed to be well adapted for Europeans, and very favourable in cases of dysentery and phthisis, which, as a rule, do not derive any benefit from the Himālayan sanitaria. The great drawback to Sakesar is the scarcity of good drinking-water. There are, however, many places in the neighbourhood where excellent water is procurable; and, by having recourse to tanks, a sufficiency of water could be stored for a considerable number of people.

Sakhera.—Town in the Baroda *prānt*, Baroda State. *See* SANKHEDA.

Sakhi Sarwar.—Famous Muhammadan shrine in the District and *tahsīl* of Dera Ghāzi Khān, Punjab, situated in 29° 59′ N. and 70° 18′ E. The shrine, which dates from about 1300, crowns the high bank of a hill stream, at the foot of the Sulaimān Hills, in the midst of arid desert scenery, well adapted for the residence of those who desire to mortify the flesh. It was founded in honour of Saidi Ahmad, afterwards known as Sakhi Sarwar, the son of an immigrant from Baghdād, who settled at Siālkot, 12 miles east of Multān, in 1220. Saidi Ahmad became a devotee, and, having performed a very remarkable series of miracles, was presented by the king of Delhi with four mule-loads of money, with which the Sakhi Sarwar shrine was erected. A handsome flight of steps leads from the bed of the stream to the building, constructed at the expense of two Hindu merchants of Lahore. The buildings include the mausoleum of Sakhi Sarwar himself; a monument to Bāba Nānak; the tomb of Musammāt Bibi Bai, wife of Sakhi Sarwar; and a *thākurdwāra*. They thus comprise a curious mixture of Hindu and Muhammadan architecture, and are frequented by devotees of all religions. The guardians of the shrine are the descendants of Sakhi Sarwar's three servants, among whom the revenues accruing from the offerings are divided in 1,650 shares, the descendants of one servant receiving 750 shares, of another 600 shares, and of the third 300 shares. Throughout the year the shrine forms the resort of numerous mendicants, Hindu and Muhammadan.

Sakkarepatna.—Town in the Kadūr *tāluk* of Kadūr District, Mysore, situated in 13° 26′ N. and 75° 55′ E., 11 miles south-west of Kadūr railway station. Population (1901), 1,884. This is said to have been in old times the capital of Rukmāngada, a king mentioned in the Mahābhārata. It contains a monument to Honbilla, who was sacrificed to secure the stability of the Ayyankere reservoir, and also a great gun, and an immense slab of stone, about 12 feet square and several inches thick, supported on four pillars. The last is called Vīra Ballāla Chauki, and is said to have been the royal seat of justice.

Under the Vijayanagar kingdom, the place belonged to the Belūr chiefs. It was next taken by the Bednūr rulers, and Sivappa Naik of that family conferred it on the king of Vijayanagar, who had fled to him for refuge. But in 1690 it was taken by the Rājā of Mysore, and retained by him under the treaty of 1694. The municipality, formed in 1895, became a Union in 1904. The receipts and expenditure during the six years ending 1901 averaged Rs. 1,700 and Rs. 1,200. In 1903–4 they were Rs. 1,500 and Rs. 5,200.

Saklānā Estate.—Feudatory estate situated in the west of the State of Tehrī, United Provinces, with an area of 70 square miles. The owners or *muāfīdārs* pay an annual quit-rent of Rs. 200 to the Rājā of Tehrī, and derive an income of about Rs. 2,500 from the estate. During the Gurkha War their ancestors rendered important services to the British Government. The *muāfīdārs* have power to try all civil, rent, and revenue suits arising in their own villages, and exercise powers as second-class magistrates. Cases in which the *muāfīdārs* are personally interested are transferred by the Commissioner of Kumaun, as Agent for the Tehrī State, to competent courts in a British District.

Sakoi (Burmese, *Sagwe*).—A small State in the central division of the Southern Shan States, Burma, lying astride of the Pilu river, between 19° 52′ and 20° 0′ N. and 96° 55′ and 97° 13′ E., with an area of 103 square miles. It is bounded on the north by Samka and Namtok; on the east by Hsahtung and Karenni; and on the south and west by Möngpai and Loilong. The population in 1901 was 1,387, inhabiting 27 villages, of whom three-fourths were Shans and the rest Karens and Taungthus, who are mainly occupied in rice cultivation. Sakoi, the head-quarters of the Myoza, has only 35 houses and 157 inhabitants; and there are no villages of any size in the State. The revenue in 1903–4 was only Rs. 1,600. The tribute payable to the British Government is Rs. 500.

Sākoli.—Southern *tahsīl* of Bhandāra District, Central Provinces, lying between 20° 41′ and 21° 17′ N. and 79° 43′ and 80° 34′ E., with an area of 1,549 square miles. The population in 1901 was 167,395, compared with 178,984 in 1891. The density is 108 persons per square mile. The *tahsīl* contains 557 inhabited villages. The head-quarters are at Sākoli, a village of 2,019 inhabitants, 24 miles from Bhandāra town by road. Excluding 240 square miles of Government forest, only 32 per cent. of the available area is occupied for cultivation. The demand for land revenue in 1903–4 was Rs. 1,25,000, and for cesses Rs. 12,000. The *tahsīl* includes 17 *zamīndāri* estates with a total area of 710 square miles, of which 406 consist of forest. It is a rice-growing tract broken up by small ranges of hills, and contains the large irrigation tanks for which Bhandāra is noted. The culti-

vated area in 1903-4 was 356 square miles, of which 53 were irrigated.

Sakrand.—*Tāluka* of Hyderābād District, Sind, Bombay, lying between 26° 2′ and 26° 35′ N. and 67° 53′ and 68° 31′ E., with an area of 786 square miles, including the *petha* of Shāhpur. Population rose from 49,447 in 1891 to 64,036 in 1901. The density is 84 persons per square mile. The number of villages is 109, of which Sakrand is the head-quarters. The land revenue and cesses in 1903-4 exceeded 1·1 lakhs. Much of the land in the eastern portion is covered with sandhills. The *tāluka* has considerable jungles which give shelter to wolves and wild hog. The chief crops are wheat, tobacco, gram, rapeseed, and sesamum.

Sakrāyapatna.—Town in Kadūr District, Mysore. *See* SAKKAREPATNA.

Saktī.—Feudatory State in the Central Provinces, lying between 21° 55′ and 22° 11′ N. and 82° 45′ and 83° 2′ E., with an area of 138 square miles. It is bounded by Bilāspur District on the west and by the Raigarh State on the east. The head-quarters are at Saktī (population, 1,791), a station on the Bengal-Nāgpur Railway. Along the north of the State extends a section of the Korbā range of hills, and beneath these a strip of undulating plain country of Chhattīsgarh tapers to the south. The ruling family are Rāj Gonds. The legend is that their ancestors were twin brothers who were soldiers of the Rājā of Sambalpur, but they only had wooden swords. When the Rājā heard of this, he determined to punish them for keeping such useless weapons; and, in order to expose them, he directed that they should slaughter the sacrificial buffalo on the next Dasahra festival. The brothers, on being informed of the order, were in great trepidation, but the goddess Devī appeared to them in a dream and said that all would be well. When the time came they severed the head of the buffalo with one stroke of their wooden swords. The Rājā was delighted at their marvellous performance, and asked them to name their reward. They asked for as much land as would be enclosed between the lines over which they could walk in one day. This request was granted, the Rājā thinking they would only get a small plot. The distances walked by them, however, enclosed the present Saktī State, which their descendants have since held. The swords are preserved in the family and worshipped at the Dasahra. The last chief, Rājā Ranjīt Singh, was deprived of his powers in 1875 for gross oppression and attempts to support false representations by means of forged documents, and the management of the State was assumed by the British Government. In 1892 Rūp Nārāyan Singh, the eldest son of the ex-Rājā, was installed as chief of Saktī, on his engaging that he would be guided in all matters of administration by the advice of

a Dīwān appointed by Government. This restriction was subsequently removed, but was reimposed in 1902. The relations of the State with Government are in charge of a Political Agent, under the supervision of the Commissioner, Chhattīsgarh Division. The population in 1901 was 22,301, having decreased by 12 per cent. during the preceding decade. The number of inhabited villages is 122, and the density of population 162 persons per square mile. Gonds and Kawars are the most numerous castes, and the whole population speak the Chhattīsgarhī dialect of Hindī.

The yellow rice land of Chhattīsgarh extends over most of the State. No regular agricultural statistics have been prepared since 1893, in which year the last settlement of revenue was made. It 1904 it was estimated that 73 square miles, or 53 per cent. of the total area, were cultivated. Of this, 50 square miles were under rice, the other crops being *kodon* and *urad*. It is believed that there has been little alteration in the cropping since 1893. The State contains 258 irrigation tanks. The forests lie in the *sāl* belt, and *sāl* (*Shorea robusta*) is the principal timber tree, but there is also a little teak. Timber and other forest produce are exported, and *tasar* silk cocoons are gathered for the local demand.

The revenue in 1904 was Rs. 38,000, of which Rs. 21,000 was derived from land, Rs. 6,900 from forests, and Rs. 4,000 from excise. The State has been cadastrally surveyed, and in 1893 a summary settlement was made on a rough valuation of the village lands. The villages are generally let to *thekadārs* or farmers, and many of these have been secured against ejectment. The expenditure in 1904 was Rs. 31,000, the principal items being general administration (Rs. 11,000), expenses of the ruling family (Rs. 8,600), and repayment of loans (Rs. 1,200). The Government tribute is Rs. 1,300, and is liable to revision. The chief also owns ten villages in Bilāspur District in ordinary proprietary right. The State has not sought the assistance of the Engineer of the Chhattīsgarh States division, and manages its own public works. It supports four vernacular schools, with 280 pupils, at an annual expenditure of Rs. 400, and a dispensary at Saktī.

Sālār Jang Estate.—An estate comprising six *tāluks* situated in various Districts of the Hyderābād State. It consists of 333 villages, and has an area of 1,486 square miles, with a population (1901) of 180,150. The *tāluks* are Kosgi in Gulbarga, Ajanta in Aurangābād, Koppal and Yelbarga in Raichūr, Dundgal in Medak, and Raigir in Nalgonda. The total revenue is 8·2 lakhs.

The present representative of the family is Nawāb Sālār Jang, grandson of the late Sir Sālār Jang, G.C.S.I., the great minister of the Nizām[1]. The family claim descent from Shaikh Owais of Karan, who

[1] *Memoirs of Sir Salar Jang*, by Syed Hossain Bilgrami (1883).

lived in the time of the Prophet; Shaikh Owais the second, his tenth descendant, came to India during the reign of Alī Adil Shāh (1656–72), and settled in Bijāpur, where his son, Shaikh Muhammad Alī, married the daughter of Mullā Ahmad Nawāyet[1], the minister of the Bijāpur kingdom, by whom he had two sons who rose to high rank. Mullā Ahmad having joined the imperial service about 1665, his successor ill-treated the two brothers, who eventually left Bijāpur during the reign of Sikandar Adil Shāh and entered the service of Aurangzeb. One of these, Shaikh Muhammad Bākar by name, was appointed Dīwān of Thal-kokan, and after retiring from active work settled in Aurangābād, where he died in 1715. His son, Shaikh Muhammad Takī, served under Aurangzeb, Bahādur Shāh, and Farrukh Siyar. Asaf Jāh, the viceroy of the Deccan, appointed him commander of the garrisons of all his forts. Shams-ud-dīn Muhammad Haidar, son of Muhammad Takī, continued in the service of Asaf Jāh, and was promoted by his successors. Under Salābat Jang his command was raised to 7,000 foot and 7,000 horse, and he received the title of Munīr-ul-mulk, with the appointment of head steward. He was subsequently made Dīwān of the Deccan *Sūbahs*, and finally retired to Aurangābād, of which city he was governor.

He left two sons, the elder of whom, Safdar Khān Ghayūr Jang, was appointed Dīwān of the Deccan *Sūbahs* in 1782, with the title of Ashja-ul-mulk. The third son of Ghayūr Jang, from whom the present members of the family are directly descended, was Alī Zamān, Munīr-ul-mulk II. After his death his eldest son became the third Munīr-ul-mulk, and was married successively to two daughters of Mīr Alam (Saiyid Abul Kasim). Mīr Alam, who was thus the maternal great-grandfather of Sir Sālār Jang, belonged to the Nūria Saiyids of Shustar in Persia. His father, Saiyid Razzāk, came to India when quite young, and settled at Hyderābād, where Nizām Alī Khān bestowed *jāgīrs* upon him. Mīr Alam acted as *vakīl* between the British envoy and the Hyderābād minister in 1784. Two years later he went to Calcutta as the Nizām's representative, and in 1791 he was sent to Lord Cornwallis to discuss the peace proposals between Tipū Sultān and the allies. He commanded the Nizām's troops in the campaign of 1799 against Tipū, and in 1804 was made minister after the death of Azam-ul-Umarā. After his death in 1808, he was succeeded as minister by his son-in-law, Munīr-ul-mulk III.

Sir Sālār Jang, the grandson of Munīr-ul-mulk III, succeeded his uncle Sirāj-ul-mulk of Hyderābād in 1853. For thirty years the story of his life is the history of the HYDERĀBĀD STĀTE, to the article on which reference should be made. For his eminent services he was made

[1] Vide *History of Nawayets*, by Nawāb Aziz Jang, published at Hyderābād, 1313 Fasli (1904).

G.C.S.I., and during a visit to England in 1876 he received the D.C.L. degree at Oxford, and the freedom of the City of London. In 1884 the Nizām appointed the elder son of Sir Sālār Jang as minister, who, however, resigned in 1887, and died two years later, leaving an infant son, Nawāb Yūsuf Alī Khān Bahādur Sālār Jang, who is now the only direct representative of this distinguished family.

Sale.—South-western township of Myingyan District, Upper Burma, lying along the Irrawaddy, between 20° 32′ and 20° 56′ N. and 94° 43′ and 95° 2′ E., with an area of 498 square miles. The soil is poor; near the river late sesamum is the chief crop, while on the less fertile lands farther from the stream the staple is early sesamum, followed by millet, beans, or *lu*. The population was 45,394 in 1891, and 33,993 in 1901, distributed in 157 villages. Sale (population, 2,514), a village on the bank of the Irrawaddy, and a port of call for river steamers, is the head-quarters. In 1903–4 the area cultivated was 113 square miles, and the land revenue and *thathameda* amounted to Rs. 46,000.

Salem District.—An inland District in the south of the Madras Presidency, lying between 11° 1′ and 12° 54′ N. and 77° 29′ and 79° 2′ E., with an area of 7,530 square miles. It is bounded on the north by Mysore and North Arcot; on the east by North and South Arcot and Trichinopoly; on the south by Trichinopoly and Coimbatore; and on the west by Coimbatore and the State of Mysore.

Physical aspects.

Salem is made up of three distinct tracts of country, which were formerly known as the Bālāghāt, the BĀRAMAHĀL, and the Tālaghāt. The Bālāghāt, consisting of the Hosūr *tāluk*, is situated on the Mysore table-land and is the most elevated portion of the District, the greater part of it being 3,000 feet above sea-level. The Bāramahāl is the next step in descent, and its extensive plain comprises the Krishnagiri, Dharmapuri, Tiruppattūr, and Uttangarai *tāluks*. Of these, Krishnagiri slopes from 2,000 down to 1,300 feet, which is the general level of the other three. An almost unbroken chain of hills, traversing the District a little south of its centre from east-south-east to west-north-west, separates this tract from the Tālaghāt. The latter, comprising the Salem, Atūr, Nāmakkal, and Tiruchengodu *tāluks*, is, as its name imports, below the Eastern Ghāts, and descends from a maximum of about 1,200 feet in the Salem *tāluk* to the level of the plains of the Carnatic on the east and south. The southern Tālaghāt is marked by three most striking masses of rock, all alike more or less bare of vegetation: namely, the walled and battlemented height of NĀMAKKAL, the crescent-topped hill-fortress of TIRUCHENGODU, and the great, square, white mass of SANKARIDRUG. From it, over a saddle on the north-western base of the KOLLAIMALAIS, an unsuspected *ghāt*, guarded by a huge statue of Hanumān, descends into the gardens of Nāmagiripet and Rāsipur. Emerging from this

valley, which is shut in by the Bodamalais, one reaches the higher plateau of the northern Tālaghāt, studded from end to end with numerous isolated hills. Particularly striking are the serrated ridge of the KANJAMALAI outlined sharply against the south-western sky, and the peaks of the Godumalai which rise boldly on the east towards the Atūr valley. Much mineral wealth lies hidden in these hills; their iron is exceedingly rich, and valuable beds of white magnesite, which local tradition declares to be the bones of the legendary bird Jatāyu, crop out among the hills on either side of the railway before it enters Salem city.

The great mountain screen above referred to, which stretches across the District with the SHEVAROYS as its centre, is pierced by four passes giving access from the Tālaghāt to the Bāramahāl. The easternmost of these is the Kottapatti pass, leading to the village of the same name at the head of a lovely valley stretching away to the historic *ghāt* of Changama (Chengam), through which flows the trade from the north into the ancient mart of Tiruvannāmalai. This Kottapatti pass separates the Tenandamalai from the range of the KALRĀYANS. On either side of the Shevaroys is a *ghāt* leading to the two great landmarks of the Bāramahāl country. The trunk road over the eastern, or Manjavādi *ghāt*, passes to the left of the Chitteri hills and winds round Harūr towards the sacred heights of Tīrthamalai (3,500 feet). On the west, the railway, toiling up the Morūrpatti *ghāt*, keeps the Vattalamalai to the left and runs past the sharp peak of Mukkanūr (4,000 feet). The westernmost, or Toppūr pass, leads to the rolling downs of Dharmapuri.

On the north-east of the Bāramahāl the JAVĀDIS hang like a curtain. From the breezy top of Kambugudi (3,840 feet) there is a fine view of the fertile Alangayam valley, of which Munro wrote, 'There is nothing to be compared to it in England, nor, what you will think higher praise, in Scotland.' A rifle-shot carries across from the Javādis to the Yelagiri, which is more healthy, and deserves to be more popular, than the other minor hill ranges. An extensive view of the whole Bāramahāl country is obtained from this hill. On the right gleam the white minarets of Vāniyambādi, above the dark groves of coco-nut that stretch away on both sides of the Pālār. To the left the great red plain heaves into billows, and its many rocky hills seem to surge against the mountain guard of the Bālāghāt, from which the country rises tier over tier to the Mysore plateau.

The Melagiris, the chief hill range of the Bālāghāt, attain a height of over 4,500 feet at their southern extremity. Sandal-wood and valuable timber abound here, as well as in the Denkanikota jungles. The rolling uplands of the Bālāghāt or Hosūr *tāluk* are admirably adapted for pasture; and abundant forage is available at the Cavalry

Remount Dépôt at Mattagiri, which, with its paddocks and hedgerows and the green lanes between, recalls the familiar features of an English landscape.

The river systems of Salem are four in number. The chief stream in the District is the CAUVERY, which flows along its western and southern boundaries, separating it from Coimbatore, and is joined by the Sanatkumāranadī, the Sarabhanganadī, the Tirumanimuttār, the Karuvattār, and the Aiyār rivers. The second system may be called the VELLĀR system; to it belong the Vasishtanadī and the Swetanadī, which drain two parallel valleys running east and west in the Atūr *tāluk*, the former carrying off the drainage of the Kalrāyans and the latter that of the Kollaimalais and Pachaimalais. The third system is that of the PONNAIYĀR, which flows through the Bālāghāt and Bāramahāl to the east coast. The last and smallest system is that of the PĀLĀR, which traverses the northern corner of Tiruppattūr.

Geologically, Salem is covered with gneisses and crystalline schists belonging to the older and younger Archaeans of Southern India. The quartz-magnesite schists of the Kanjamalai, Tīrthamalai, Kollaimalais, and the Javādis, beds of great thickness with an average of 40 per cent. richness in iron, are included in the latter class; and the former is represented by the lower platform of mixed gneisses, chiefly micaceous and hornblendic, partially laid bare in the plains round Salem city. The more massive plutonic Archaeans associated with the mixed gneisses comprise the charnockite series of granulites, well developed in the rugged masses of the Shevaroys and elsewhere, on the eastern borders of which occurs a line of exposures of corundum; the biotite gneissose granite of the Bāramahāl, which builds the sharp cones and *drugs* of that country; and the mottled gneiss of Uttangarai. The only rocks of later age than these Archaeans are a scattered set of younger intrusives of considerable interest, including an enormous number of rock types. Among them are the dunites, the magnesite of the CHALK HILLS, and some acid pegmatites containing good mica.

Varying so considerably in altitude and in rainfall, the District naturally contains a wide range of flora. On the lowest levels are the usual Coromandel plants, while at Yercaud on the Shevaroys English fruits, flowers, and vegetables flourish wonderfully, and the wild flora is almost that of zones of heavy rainfall.

The District is not rich in large game. Tigers and bears are met with in the hills adjoining the Cauvery in the Hosūr and Dharmapuri *tāluks*, and an elephant occasionally wanders across from the Coimbatore side. Bears and leopards have been almost exterminated on the Shevaroys, and deer are now unknown there. The Malaiyālis on all the hill ranges have enormously reduced the quantity of small game;

but the jungles in the plains still abound with hares, partridges, quail, and spur-fowl.

In Hosūr, which is on the Mysore table-land, the climate is as pleasant as that of Bangalore, while in the lower Tālaghāt section the heat is as oppressive as in the adjoining District of Trichinopoly. The mean temperature of Salem city is 82°. The Shevaroys from their elevation naturally boast the coolest climate in the District, the thermometer rarely rising above 75° in the hottest months. The other hill ranges approach the Shevaroys in this respect, but they are not free from the drawback of malaria.

The rainfall is fairly evenly distributed through the plains, except in the two southernmost *tāluks* of Nāmakkal and Tiruchengodu, which get an average of only 30 inches annually as compared with the District average of 32. The Shevaroys are quite exceptional, receiving nearly double as much as the rest of the District.

Floods on a large scale are unknown. In the autumn of 1874 heavy freshes occurred in the Pālār, washing away the railway line in several places and sweeping away a portion of the town of Vāniyambādi. This disaster was repeated on a larger scale in November, 1903, when, owing to the bursting of tanks in Mysore, the river rose even higher than before and two suburbs of the town were completely ruined.

History.

The District was never an independent political entity. In early times the north of it was ruled by the Pallavas, while the south was included in the Kongu kingdom. In the ninth century the Chola kings annexed the whole, and subsequently it passed under the Hoysala Ballālas. In the fourteenth century it was conquered by the Hindu kings of Vijayanagar, whose sway was acknowledged till the beginning of the seventeenth century, when the District passed under the Naik rulers of Madura. From 1652 parts of it began to fall under the power of the rising Hindu dynasty of Mysore, till the whole was absorbed by Chikka Deva Rājā, the greatest of them, about 1688–90. In 1761 Haidar Alī usurped the Mysore throne. In 1767 the English reduced portions of the Bāramahāl and carried on, both within and without it, a desultory warfare with Haidar, in which the latter had the advantage. By the treaty which concluded the war with Haidar's son Tipū in 1792 the whole District, excepting the Hosūr *tāluk*, fell to the Company. After the fall of Seringapatam and the death of Tipū in 1799, Hosūr also passed to the English.

The chief objects of antiquarian interest in the District are the old fortresses at KRISHNAGIRI, NĀMAKKAL, and SANKARIDRUG.

Population.

Excepting Coimbatore, Salem is the most sparsely peopled of the southern Districts of the Presidency. The numbers at the four enumerations were as follows: (1871) 1,966,995, (1881) 1,599,595, (1891) 1,962,591, and (1901) 2,204,974.

The decrease of 19 per cent. in 1881 was due to the severity of the great famine of 1876-8; but the recovery was rapid during the ten years ending 1901, the rate of increase being higher than in any District except Kistna. Salem consists of nine *tāluks*, the head-quarters of which are at the places from which each is named. Statistics of them according to the Census of 1901 are appended:—

Tāluk.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Hosūr	1,217	1	750	184,971	152	+ 18·7	6,656
Krishnagiri	659	1	507	175,300	266	+ 15·2	6,198
Dharmapuri	941	1	580	206,030	219	+ 15·5	6,336
Tiruppattūr	539	2	323	205,986	382	+ 9·1	10,263
Uttangarai	910	...	451	159,419	175	+ 15·4	4,314
Salem	1,071	2	476	470,181	439	+ 12·7	21,613
Atūr	841	1	173	199,475	237	+ 8·9	7,159
Nāmakkal	715	2	356	313,895	439	+ 4·6	14,612
Tiruchengodu	637	1	166	289,717	455	+ 16·5	7,234
District total	7,530	11	3,782	2,204,974	293	+ 12·4	84,385

The chief of the eleven towns in the District are the three municipalities of SALEM, TIRUPPATTŪR, and VĀNIYAMBĀDI. Of the population in 1901, 2,116,768, or 96 per cent., were Hindus; 68,497 were Musalmāns; and 19,642 Christians. Tamil is the mother tongue of 71 per cent. of the people, and Telugu is spoken by 19 per cent. In Hosūr Kanarese is the vernacular of a considerable proportion.

As elsewhere, agriculture is the predominant occupation. The largest castes are all agriculturists, the most numerous being the Pallis (516,000), Vellālans (396,000), and Paraiyans (185,000). Brāhmans are unusually few, numbering only 15 in every 1,000 of the population, or less than in any area except the three Agencies in the north of the Presidency and the Nīlgiris. The shepherd Kurumbans (50,000) and the Kuravans, a wandering people who have a bad reputation for crime, are more numerous in Salem than in any other District.

Of the total Christian population in 1901, 18,701 were natives of India. Of the various sects, the Roman Catholics greatly preponderate, numbering 17,624. The foundation of the Christian Church in the District was laid in 1630 by the celebrated Robert de Nobili. He landed in India in 1606, and after founding the well-known mission at Madura, turned his steps to the north. He passed by Trichinopoly to Sendamangalam, which was then the capital of a ruler called Rāmachandra Naik, tributary to the king of Madura. This chief welcomed the missionary and gave him a site on which to build a church.

De Nobili then pushed on to Salem, where after a period of trouble he succeeded in winning over the ruler there, who was also tributary to Madura, in 1630. A church was built in the place about this time. The mission then developed towards the north, and a centre was established at Koilūr in the Dharmapuri *tāluk*. By the middle of the eighteenth century the number of converts had reached a large total, but the suppression of the Jesuits in 1773 checked the advance of Christianity; and when Tipū Sultān ascended the throne of Mysore he ordered the Koilūr church to be destroyed and deported half the Christian population to Mysore, where he sought to convert them forcibly to Muhammadanism. The work, however, went on in spite of these difficulties, and at the present day there are Catholic missionaries in every part of the District. Of the Protestant missions the most important is the London Mission, which began work in Salem as early as 1827.

Agriculture.

Agriculturally, the northern and central sections of the District are generally inferior in soil and situation to the southern or Tālaghāt section. The prevailing soil everywhere is red sand, which occupies as much as 82 per cent. of the whole area. This, however, is not the ordinary barren red sand of Trichinopoly and South Arcot, but is of superior quality and as good as red loam. The first three months of the year are usually rainless, and the fall in April is not great. The May rainfall, the early showers which precede the south-west monsoon, is usually copious and marks the commencement of the cultivation season, which goes on through the south-west monsoon, on which the District mainly depends, and the north-east rains. The months during which the largest sowings are made are July, August, and October; but over the greater part of the western *tāluks* a wide area of crop is put in even before June.

A considerable portion of the District is composed of *zamīndāri* and *inām* land, which covers 2,052 square miles out of the total area of 7,530. Returns are not available for the *zamīndāris*, and the area for which statistics are collected is 5,675 square miles. The table on the next page gives details for 1903-4, areas being in square miles.

The characteristic food-grains of the District are *rāgi* (*Eleusine coracana*) and *cambu* (*Pennisetum typhoideum*), the former, generally speaking, being most prominent in the northern and central sections and the latter in the southern portion. The area under them in 1903-4 was 431 and 516 square miles respectively. Rice is grown largely in Nāmakkal and Atūr. The former *tāluk* contains a large area of plantain and sugar-cane cultivation, and the latter of areca-nut and coco-nut. Of special crops, the coffee on the Shevaroy Hills is the most important. It covers an area of 9,000 acres, most of it grown under European supervision. In Atūr 3,000 acres are occupied by

indigo, and in the Hosūr *tāluk* mulberry is grown to a small extent for rearing silkworms.

Tāluk.	Area shown in accounts.	Cultivated.	Irrigated.	Cultivable waste.	Forests.
Hosūr . . .	873	228	16	129	388
Krishnagiri . .	377	226	23	22	54
Dharmapuri . .	738	289	25	62	293
Tiruppattūr . .	371	129	17	6	159
Uttangarai . .	764	280	13	92	304
Salem . . .	963	446	55	28	281
Atūr . . .	789	241	52	122	114
Nāmakkal . .	374	210	38	72	50
Tiruchengodu .	426	326	52	25	13
Total .	5,675	2,375	291	558	1,656

After the great famine of 1876–8 there was a considerable decrease in the area of the holdings in the District, the decline being as much as 20 per cent. Since then, however, the country has rapidly recovered, and the area now occupied is one-fifth more than it was before that famine. No marked improvements can, however, be said to have been made in the local methods of agriculture. Only in the extension of well-irrigation has a real advance been made. During the sixteen years ending 1904 nearly $2\frac{3}{4}$ lakhs was advanced to ryots under the Land Improvements Loans Act, and this has been chiefly laid out in digging or repairing wells.

Owing to the number of hill ranges and the large area of waste land affording pasture, the District is generally rich in live-stock. This is especially the case in the Hosūr *tāluk*, where the climate is favourable to the growth of grass, and almost every ryot keeps attached to his holding a small patch of grass land which is reserved for pasture. The chief breeds of cattle are three: namely, the Mysore, the Alambādi, and the Tiruchengodu. The first is raised in the forests bordering on the Cauvery in the Hosūr *tāluk*, and the second in the forest land of the Pennagaram side of the Dharmapuri *tāluk*. The bullocks of both these breeds are in much demand for draught, and command good prices at the great cattle fairs of the southern Districts. The cows of the Tiruchengodu breed, though small, are good milkers. The sheep are of the two well-known classes called Kurumba and Semmeri. The former is woolly and black or brown; the latter, hairy and reddish in colour. Government encourages pony-breeding by maintaining stallions at different stations in the District, and there is a Remount Dépôt at Hosūr.

Of the total cultivated area of the *ryotwāri* and 'minor *inām*' land, 291 square miles, or 14 per cent., were irrigated in 1903–4. Of this, 122 square miles (42 per cent.) were supplied from wells: 111 square

miles (38 per cent.) from tanks; and only 44 square miles (15 per cent.) from canals. The Cauvery is of little use for irrigation till it enters the Nāmakkal *tāluk*. Here three channels of a total length of 49 miles take off from it, and convert more than 7,000 acres, which would otherwise be barren, into a fertile area that has with justice been called the garden of the District.

The tributaries of the Cauvery have not the same constant flow as the main stream, and the land watered by them is liable to failure of crops, owing to short supply of water. The Vellār river system in the Atūr *tāluk* possesses a perennial supply and irrigates an area of 9,400 acres. The Ponnaiyār, with its tributaries, waters 26,000 acres, including both direct and indirect irrigation. Of the 1,842 Government tanks in the District, the only one large enough to be worth mention is the Barūr tank fed by the Ponnaiyār, which irrigates about 3,000 acres. Of the tanks, 79 per cent. are small reservoirs supplying less than 50 acres each, and 32 per cent. of these irrigate less than 10 acres each. In these small works the supply is very precarious, and has to be supplemented by wells to enable a 'wet crop' to be raised. Accordingly, we find that there are 25,152 wells in 'wet' land, a larger number than that in any other District in the Presidency except North and South Arcot. Wells in 'dry' land are also numerous, numbering 53,878, a figure exceeded only by Coimbatore and North and South Arcot. They are most numerous in the Tālaghāt and least so in the Bālāghāt. The garden land supplied by them is cultivated with great skill, and the crops raised are heavier and more valuable than those irrigated from channels or tanks. In the Rāsipur side of the Salem *tāluk* this garden cultivation is especially excellent.

Forests.

The chief forests form a horseshoe belt across the District from west to east, beginning on the mass of hills bordering the Cauvery and thence extending along the Shevaroys in the centre of the District to the Chitteri and Kalrāyan hills. The Pachaimalais and Kollaimalais form a separate block in the south-eastern corner of the District. The area of 'reserved' forests is 1,560 square miles, and that of 'reserved' lands 96 square miles. Sandal-wood flourishes on almost every hill range, but is most abundant on the Javādis and the Chitteris at an altitude of 2,000 to 3,000 feet. Teak, black-wood (*Dalbergia latifolia*), *acha* (*Hardwickia binata*), *vengai* (*Pterocarpus Marsupium*), *Terminalia tomentosa*, satin-wood (*Chloroxylon Swietenia*), *Anogeissus latifolia*, and other timber trees grow to a moderate size in all the forests, while along the streams in the hills some large specimens of *Terminalia Arjuna* are found. At the foot, and on the lower slopes, of all the hill ranges on the eastern side of the District are numbers of tamarind-trees growing to a remarkable height and size. The forests within 15 miles of the Madras Railway were until

recently worked principally for the supply of fuel for the line. The work in the Forest department has now become so heavy that an additional Forest officer has been posted to the District.

Minerals.

Salem is rich in minerals. Gold, iron, saltpetre, mica, corundum, rubies, magnesite, and crystalline limestone have all been found. Dr. Heyne, an Indian medical officer who toured throughout the country in the early part of last century, refers to some gold-mines at Siddharkovil, a place conjectured to be near Rāyakottai. Gold used to be found also at the foot of the Kanjamalai hills, people washing for it in the streams after the rains. No gold in workable quantities is found now. Licences have been taken out for prospecting in the village of Kanavāypudūr in the Salem *tāluk* and in the Kurumbapatti 'reserved' forests of the Shevaroy Hills, but the search has been without result.

Magnetic iron ore of an excellent quality is found in practically inexhaustible abundance in the District, but the scarcity of cheap fuel prevents its utilization. The iron beds occur chiefly in five groups: the Kanjamalai group at the hill of the same name, the Godumalai group in the Salem-Atūr valley, the Singipatti group 4 miles south of the Godumalai, the Kollaimalai-Talamalai group in the eastern part of the Nāmakkal *tāluk*, and the Tīrthamalai group in the Uttangarai *tāluk*. In the villages in the vicinity of these beds the ore is smelted in the primitive Indian fashion, but not to the same extent as formerly when there was no competition from English wrought iron. Salem iron was famous in the early years of the last century, and a company known as the Porto Novo Iron Company worked the ores on the Kanjamalai hills at foundries established at PORTO NOVO in South Arcot and at Pulampatti on the Cauvery in the Tiruchengodu *tāluk*. As the jungles diminished, charcoal for smelting had to be brought from longer distances, and the working expenses became too heavy to allow of any profit. The company finally ceased to exist about 1867. At present two firms hold prospecting licences for the Kanjamalai iron, but nothing has yet been done to develop it.

Saltpetre gives work to three refineries at Mohanūr in the Nāmakkal *tāluk*. Mica-mining operations were conducted for a short time in the villages of Chinnamanali and Cholasiramani, but have ceased. Corundum is extracted under a mining lease at Komārapālaiyam in the Nāmakkal *tāluk*. In a number of other villages also corundum is found, and the right to quarry for it is annually leased out by auction. Along with the corundum, rubies are sometimes discovered. Magnesite is being extracted under a mining lease in five Government villages and one *jāgīr* village in the Salem *tāluk*. The area leased is 1,131 acres, and in 1904 the out-turn was 174 tons in Government land and 1,141 tons in *jāgīr* land.

The chief industry in Salem is weaving, which is carried on in every town or village of any importance. Pure silk cloths and good white cloths with silk borders are woven, especially in Salem city, and exported to other Districts; but the industry is now on the decline, owing to the competition of English machine-made goods. Kurumbans or shepherds weave coarse blankets from sheep's wool all over the District, and a superior variety of these articles is made at Lattivadi in the Nāmakkal *tāluk*. Indigo is manufactured in fifty-five factories in Atūr and two in Tiruppattūr. Several tanneries for the curing of hides exist at Tiruppattūr, Vāniyambādi, and elsewhere. The latter town is a centre of the Labbais, a mixed race of Musalmāns who do most of the skin trade in the Presidency. Potstone utensils are made at Omalūr in the Salem *tāluk*.

Trade and communications.

Rice, wheat, castor-oil seed, castor-oil, *ghī*, cloth, betel-leaves, plantains, areca-nuts, indigo, tamarinds, mangoes, coffee, and cattle are among the chief exports of the District. Salt, pepper, tobacco, yarn, and ground-nuts are some of the principal articles imported. Cattle are driven from Hosūr and Dharmapuri to the great cattle-markets in South Arcot, Trichinopoly, Madura, and Tinnevelly. The mangoes go to Madras and Bombay (where they are sold as Bombay mangoes), and betel-leaves and plantains are sent to the same places. The internal trade of the country is carried on at weekly markets, which are held at most of the large villages and form a feature of social life in this District. They are usually managed by the local boards, which in 1903–4 collected Rs. 15,800 in market fees.

The south-west line of the Madras Railway enters the District near Vāniyambādi and runs through to the Cauvery, which it crosses by a fine bridge near Erode. A narrow-gauge ($2\frac{1}{2}$ feet) railway between Morappūr and Dharmapuri is under construction, and a similar line between Tiruppattūr and Krishnagiri has recently been opened. The District has the largest mileage of roads (2,020 miles) in the Presidency except Coimbatore, but only 582 miles are metalled. There are avenues of trees along 1,311 miles of road, which are managed by the local boards.

Famine.

During the last century the District experienced two famines, in 1833 and 1876–8, and serious scarcity in 1866 and 1891–2. The most terrible calamity was the famine of 1876–8, and during its height as many as 369,137 of the population were being gratuitously fed. The expenditure on relief works was 28 lakhs, on gratuitous relief 32 lakhs, and the indirect expenditure and loss of revenue amounted to a further sum of $8\frac{1}{4}$ lakhs.

The District is arranged into four administrative subdivisions, two

of which are usually in charge of members of the Indian Civil Service, and the other two of Deputy-Collectors recruited in India. These are Hosūr, comprising the HOSŪR, KRISHNAGIRI, and DHARMAPURI *tāluks*; Tiruppattūr, comprising TIRUPPATTŪR and UTTANGARAI; Nāmakkal, comprising NĀMAKKAL and TIRUCHENGODU; and Salem, comprising SALEM and ATŪR. A *tahsīldār* is in charge of each *tāluk*, but in only four *tāluks* is there a stationary sub-magistrate for magisterial work, which in the other five is entrusted to a *sheristadār* magistrate. Ten deputy-*tahsīldārs* are subordinate to the *tahsīldārs*. There is the usual staff of superior officers, with the addition of the second District Forest officer already mentioned.

Administration.

Civil justice is administered by the District Judge, aided by a Sub-Judge who sits for part of the year at Salem, and by five District Munsifs. Criminal justice is dispensed by the Sessions Court, the divisional magistrates (who have the usual first-class powers), and the subordinate second-class magistrates. Much of the crime is committed by the Pallis and the Kuravans already referred to. Dacoity has been more than usually prevalent of late.

The land revenue history of Salem District is of considerable interest, as the beginnings of the *ryotwāri* system were evolved here. The old native method was to rent out the country by villages or other small areas to the village headmen or other lessees. Captain Read, the first Collector of the District, took charge in 1792. Government instructed him to effect a settlement for a term of five years with the cultivators themselves. To do this, Read, with the co-operation of his Assistants, Graham and Munro, surveyed all the land in the District and fixed a money assessment on the fields, the operations being completed in five years (1793–7). During the time the survey was in progress a change had come over Read's opinions; and, on December 10, 1796, he issued his famous order which gave ryots the option of holding their land either under the old lease system or under annual settlements, the latter mode allowing them to give up early in each year whatever land they might not care to cultivate that year, and to retain for any length of time such land as they wished, subject to the payment of assessment for it. This was the germ of the *ryotwāri* system; but the revenue system of Bengal, where Lord Cornwallis had introduced permanent settlement, was extended to Madras by the Government of India. In 1802 Read's *ryotwāri* settlement was cancelled by the appointment of a special commissioner, who, in the next three years, parcelled out the District into 205 *mittahs* (estates), which were sold at auction to the highest bidders and held on fixed rents. The *zamīndāri* system was a failure. Owing to the high rates at which the rents were fixed and the low margin of profit remaining to the *mittahdārs*, the sums payable by them fell into arrear, their *mittahs* were in consequence attached

and sold, and for want of other bidders Government had to buy them in. The estates thus broken up were then administered under the *ryotwāri* system. The evil of excessive assessments was partially reduced by orders issued in 1816 and 1818; but systematic reduction was not effected before 1859, when the Government sanctioned proposals of the Collector for a percentage abatement in the old rates. The reduction gave a wonderful impetus to cultivation, and the land revenue rose with a bound. In 1860 a scientific survey of the District was begun, and in 1871 a new revenue settlement was inaugurated. The survey showed that the extent of holdings in the old accounts had been understated by 15 per cent., and the settlement resulted in an increase of revenue amounting to 4 per cent. The average assessment per acre on 'wet' land was Rs. 3-15-1 in the north of the District and Rs. 5-1-9 in the south, the maximum being Rs. 10-8 and the minimum Rs. 1-4. On 'dry' land the average assessment was R. 0-14-5 in the north and Rs. 1-5-6 in the south, the maximum being Rs. 5 and the minimum 4 annas per acre. This settlement is now being revised in five *tāluks* by a resurvey and a resettlement.

The revenue from land and the total revenue in recent years are given below, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	25,40	26,70	27,84	29,01
Total revenue . .	31,50	39,09	45,67	49,39

Local affairs are managed by a District board and four *tāluk* boards, the jurisdictions of the latter corresponding to the four subdivisions above mentioned. The total expenditure of these bodies in 1903-4 was 4·27 lakhs, the chief items being roads and buildings (1·85 lakhs), education (Rs. 71,000), and medical services (1·30 lakhs). The chief source of income is, as usual, the land cess. The towns of SALEM, TIRUPPATTŪR, and VĀNIYAMBĀDI are municipalities and are excluded from the control of the boards. The number of Unions is thirty-four.

The police force is managed by a District Superintendent aided by an Assistant. There are 102 police stations; and the force in 1904 numbered 1,285 constables and head constables, working under 21 inspectors, and 2,475 rural police. Besides the Salem jail, which is one of the seven Central prisons of the Province and can hold 548 convicts, there are 18 subsidiary jails, which can collectively accommodate 201 male and 118 female prisoners.

In education Salem is very backward. The proportion of the population who can read and write is scarcely more than half the average for the southern Districts as a whole, and the only areas in the Madras Presidency which at the Census of 1901 contained a smaller percentage

of literate persons were Vizagapatam and the three Agency Tracts. Of every 1,000 persons in the District, only 38 were classed as literate. The number of literate persons among the males and females of the District amounted to 74 and 4 per 1,000 respectively. Only 5 per cent. of the males had received any education in English, and the number of girls (including all the Europeans and Eurasians) who could read and write that language was only 500. Education was most advanced in the Tiruppattūr, Salem, and Nāmakkal *tāluks*, and least so in Uttangarai and Tiruchengodu. The total number of pupils under instruction in 1880–1 was 9,316; in 1890–1, 23,171; in 1900–1, 31,976; and in 1903–4, 31,231. The number of educational institutions of all kinds in the District in 1904 was 972, of which 847 were classed as public and the remainder as private. Of the former, 11 were managed by the Educational department, 197 by the local boards, and 26 by the municipalities, while 288 were aided from Local funds and 325 were unaided. These institutions include the municipal college at Salem, 25 secondary, 818 primary, and 3 training and other special schools. The number of girls in these was 4,023. As usual, the majority of the pupils were only in primary classes. Of the male population of school-going age 15 per cent. were in the primary stage of instruction, and of the female population of the same age 2 per cent. The corresponding percentages for Musalmāns were 72 and 12. Panchama pupils numbering 1,344 were being educated in 51 schools maintained especially for them. The total expenditure on education in 1903–4 was Rs. 1,73,000, of which Rs. 69,000 was derived from fees. Of the total, 71 per cent. was devoted to primary education.

The District possesses 11 hospitals and 15 dispensaries, with accommodation for 114 in-patients. In 1903 the number of cases treated was 203,000, of whom 1,400 were in-patients, and 7,100 operations were performed. The expenditure was Rs. 56,000, met chiefly from Local and municipal funds.

In 1903–4 the number of persons successfully vaccinated was 27 per 1,000 of the population, the mean for the Presidency being 30. Vaccination is compulsory in all the municipalities and Unions, and in the village of Komārapālaiyam in the Tiruchengodu *tāluk*.

[H. Le Fanu, *District Manual* (1883).]

Salem Subdivision.—Subdivision of Salem District, Madras, consisting of the SALEM and ATŪR *tāluks*.

Salem Tāluk.—Central *tāluk* of Salem District, Madras, lying between 11° 23′ and 11° 59′ N. and 77° 46′ and 78° 29′ E., with an area of 1,071 square miles. The greater part is composed of a series of valleys from 5 to 12 miles wide shut in by lofty ranges of hills, the chief being the SHEVAROYS, on which stands the sanitarium of YERCAUD, the Toppūr hills, and the Tenandamalai on the north, which

separate the *tāluk* from the BĀRAMAHĀL. The chief river is the Tirumanimuttār, which rises in the Shevaroys and flows through the city of Salem to Tiruchengodu and on to Nāmakkal, where it enters the Cauvery. But the mainstay of irrigation is the wells sunk by the ryots themselves, which are more numerous here than in any other portion of the District. The *tāluk* had a population of 470,181 in 1901, as compared with 417,379 in 1891. It contains 476 villages and two towns: SALEM CITY (population, 70,621), the head-quarters of the District and *tāluk*, and RĀSIPUR (11,512), the head-quarters of a deputy-*tahsīldār*. The *tāluk* is rich in minerals, containing the famous iron deposits of Kanjamalai and the magnesite of the CHALK HILLS. The demand for land revenue and cesses in 1903-4 amounted to Rs. 6,41,000.

Salem City.—Head-quarters of the District and *tāluk* of the same name in Madras, situated in 11° 39′ N. and 78° 10′ E., 206 miles by rail from Madras city. It lies in a picturesque valley, bounded on the north by the Shevaroys and on the south by the Jarugumalais. The Tirumanimuttār river, flowing through this valley, contributes to the wealth of greenness which is the great charm of the landscape. Salem contains the usual offices, a small college, and one of the seven Central jails of the Presidency. The residences of the officials, except of the Collector whose house is in the native quarter, are pleasantly situated on high ground along the road to Yercaud, which is only 14 miles distant by the old bridle-path. The city is straggling and extensive, being about 4 miles long and 3 broad. Its population in 1901 was 70,621, and it ranks as the fifth largest place in the Presidency. Of the total, Hindus numbered 63,444, Musalmāns 5,811, and Christians 1,365. In 1871 the population was 50,012; in 1881, 50,667; and in 1891, 67,710. A serious riot took place here in 1882 between the Muhammadans and the Hindus, the question involved being the old one of the right of a Hindu procession to pass a Musalmān mosque. Salem was made a municipality in 1866. The receipts and expenditure during the ten years ending 1902-3 averaged about Rs. 77,000 and Rs. 70,000 respectively. In 1903-4 the income was Rs. 90,000, the chief items being house and land taxes; and the expenditure was Rs 1,00,000, including medical services and sanitation (Rs. 39,000), education (Rs. 23,000), and public works (Rs. 20,000). The great want of the city is a proper water-supply. Several schemes have been investigated, but only recently has a promising one been discovered. Salem formerly had an evil reputation as a hotbed of cholera, and in the autumn of 1875 there were 2,039 attacks and 840 deaths in the short space of six weeks. Weaving in silk and cotton is the chief local industry, but is on the decline. In the distress of 1891-2 the weavers suffered greatly and emigrated in large numbers, the demand for

their productions having fallen off owing to the scarcity of money among their usual clients. Government started a special scheme for their relief, by undertaking to purchase cloths from them on a system which left them a margin for subsistence.

Salempur-Majhaulī.—Two adjacent villages in the Deoriā *tahsīl* of Gorakhpur District, United Provinces, situated on either bank of the Little Gandak river, in 26° 17′ N. and 83° 57′ E. Salempur is now a station on the Bengal and North-Western Railway. The two villages are treated as one town; population (1901), 6,051. Majhaulī, on the east, is the residence of the Rājā of the Majhaulī estate, one of the most important in the District, the Rājā being recognized as head of the Bisen Rājputs. The estate deteriorated owing to improvidence and continued bad administration, but has recovered under the management of the Court of Wards. The fort is a modern brick building of commonplace appearance. The joint town is administered under Act XX of 1856, with an income of about Rs. 700. There is no trade. A school in Salempur has 43 pupils, and another in Majhaulī 115. There is also a girls' school with 27 pupils at Majhaulī.

Salin Subdivision.—Northern subdivision of Minbu District, Upper Burma, comprising the SALIN and SIDOKTAYA townships.

Salin Township.—North-eastern township of Minbu District, Upper Burma, lying along the Irrawaddy, between 20° 20′ and 21° 2′ N. and 94° 18′ and 94° 53′ E., with an area of 741 square miles. The chief feature of the township is its ancient irrigation system, the main canal, from which numerous branches run, being about 18 miles in length. The country is flat and fertile. The population was 98,922 in 1891, and 100,737 in 1901, distributed in one town, SALIN (population, 7,957), the head-quarters, and 464 villages, of which the most important is Sinbyugyun (population, 5,487), near the Irrawaddy. This is by far the most densely populated township in the District. The area cultivated in 1903-4 was 186 square miles, and the land revenue and *thathameda* amounted to Rs. 3,18,000.

Salin Town.—Head-quarters of a subdivision in Minbu District, Upper Burma, situated in 20° 35′ N. and 94° 40′ E., on the right bank of the Salin river, 9 miles west of the Irrawaddy. It is on low ground, surrounded by well-irrigated paddy-fields, and is connected with Sinbyugyun and the Irrawaddy by a good metalled road. According to tradition the town was founded about A.D. 1200 by king Narapadisithu of Pagan, and the ruins of the Burmese wall are still to be traced. The neighbourhood was the scene of active operations at the time of the annexation of Upper Burma. After its occupation in 1886 the town was besieged for three days by the *pongyi* rebel Oktama, who was driven off by a force under Major Atkinson, but that officer fell in the attack.

The population of Salin has fallen of late in the same way as has that of other towns in the dry zone, the actual decrease having been from 10,345 in 1891 to 7,957 in 1901. The town has a large bazar and is a thriving trade centre, for nearly all the business from the Mon river comes to Salin and not to Minbu, and the main road from the An pass enters the town from the west. Salin was constituted a municipality in 1887. The income and expenditure during the ten years ending 1901 averaged Rs. 21,000. In 1903-4 the receipts were Rs. 21,000, including Rs. 12,000 from the municipal bazar, and Rs. 4,000 house and land tax; and the expenditure was Rs. 23,000, the principal items of outlay being Rs. 7,700 spent on conservancy, Rs. 4,700 on public works, and Rs. 2,500 on the hospital. The municipal hospital has accommodation for 22 in-patients.

Salingyi.—Township of the Lower Chindwin District, Upper Burma, lying between 21° 49′ and 22° 8′ N. and 94° 47′ and 95° 10′ E., along the western bank of the Chindwin, with an area of 296 square miles. The population was 43,658 in 1891, and 50,814 in 1901, distributed in 211 villages, Salingyi (population, 1,503), a village south of Monywa and a few miles to the west of the Chindwin, being the head-quarters. The township is flat, except in the north-east, and is well watered and thickly populated. The soil is for the most part black cotton soil, which produces rice, *jowār*, sesamum, peas, gram, and cotton. The area cultivated in 1903-4 was 147 square miles, and the land revenue and *thathameda* amounted to Rs. 1,19,900.

Sālkhia.—Northern suburb of Howrah City, Bengal, containing docks, Government salt godowns, salt crushing-mills, jute-presses, and engineering and iron works.

Salon Tahsīl.—South-eastern *tahsīl* of Rāe Barelī District, United Provinces, comprising the *parganas* of Parshādepur, Rokhā Jais, and Salon, and lying between 25° 49′ and 26° 19′ N. and 81° 13′ and 81° 37′ E., north of the Ganges, with an area of 440 square miles. Population fell from 262,120 in 1891 to 261,270 in 1901. There are 444 villages and two towns: JAIS (population, 12,688) and SALON (5,170), the *tahsīl* head-quarters. The demand for land revenue in 1903-4 was Rs. 3,67,000, and for cesses Rs. 60,000. The density of population, 594 persons per square mile, is almost that of the District as a whole. Across the centre of the *tahsīl* flows the Sai from west to east. Its banks are fringed by light sandy soil, while to the north is found a great plain of stiff clay land, producing rice. South of the Sai lies a series of *jhīls* which once formed a river-bed, and along the Ganges is a rich alluvial tract producing magnificent spring crops. In 1903-4 the area under cultivation was 241 square miles, of which 123 were irrigated. Wells serve three-fourths of the irrigated area, tanks or *jhīls* being the other source of supply.

Salon Town.—Head-quarters of the *tahsīl* of the same name in Rāe Barelī District, United Provinces, situated in 26° 2′ N. and 81° 28′ E., on a metalled road from Rāe Barelī town. Population (1901), 5,170. The town is traditionally said to have been founded by Sālivāhan, ancestor of the Bais, and was for long held by the Bhars. Under Oudh rule Salon was the head-quarters of a *chaklā*, and on annexation the name was preserved till after the Mutiny, when the District officer was posted to Rāe Barelī. Salon contains a dispensary and a branch of the Methodist Episcopal Mission, besides the usual offices. It is also the residence of the manager of a large Muhammadan religious endowment. A grant of land was first given by Aurangzeb, and additions were made by subsequent rulers. Two-fifths of the income are spent on a school and charitable gifts, and the accounts are submitted to the District officer. A middle vernacular school is attended by 80 pupils.

Salsette.—Large island forming the Salsette *tāluka* of Thāna District, Bombay, lying between 18° 53′ and 19° 19′ N. and 72° 47′ and 73° 3′ E., extending 16 miles from Bāndra northwards to the Bassein inlet, and connected with Bombay Island by bridge and causeway. The area is 246 square miles; and the island contains three towns, BĀNDRA (population, 22,075), THĀNA (16,011), the head-quarters of the District and *tāluka*, and KURLA (14,831); and 128 villages, including VESĀVA (5,426). The population in 1901 was 146,933, compared with 126,518 in 1891. It is the most densely populated *tāluka* in the District, with an average of 597 persons per square mile. Land revenue and cesses in 1903–4 amounted to about 2·6 lakhs. Along the centre of the island, from north to south, runs a broad range of hills, which, after subsiding into the plain near Kurla, crops up again in the southernmost point of the island at Trombay. The central and highest, Thāna peak, is 1,530 feet above sea-level; and on the north is a detached sharp peak 1,500 feet high. Spurs from the main range run west towards the sea, while the low lands are much intersected by tidal creeks, which, especially on the north-west, split the sea-face of the *tāluka* into small islands. There are no large fresh-water streams; but the supply of water from wells is of fair quality and pretty constant. The staple crop is rice; and most of the uplands are reserved for grass for the Bombay market. The coast abounds in coco-nut groves, and the palmyra palm grows plentifully in most parts. This beautiful island is rich in rice-fields, diversified by jungles, and studded with hills. The ruins of Portuguese churches, convents, and villas attest its former importance, and its antiquities at KĀNHERI still form a subject of interest. Eighteen estates, consisting of 53 villages, were granted in Salsette by the East India Company, some freehold, and others on payment of rent, and liable to assessment. The lines of the Great

Indian Peninsula Railway and of the Bombay, Baroda, and Central India Railway traverse the *tāluka*. Since the first outbreak of plague in Bombay, a large number of villa residences have been built by the wealthier merchants of Bombay near the latter railway. An additional Assistant Collector was appointed in 1902 to plan new roads and control building operations. Seized by the Portuguese early in the sixteenth century, Salsette should have passed to the English, together with Bombay Island, as part of the marriage portion of the queen of Charles II. The Portuguese in 1662, however, contested its transfer under the marriage treaty, and it was not till more than a century afterwards that possession was obtained. The Marāthās took it from the declining Portuguese in 1739. The English captured it from the Marāthās in December, 1774, and it was formally annexed to the East India Company's dominions in 1782 by the Treaty of Sālbai.

Salt Range.—Hill system in the Jhelum, Shāhpur, and Miānwāli Districts of the Punjab, deriving its name from its extensive deposits of rock-salt, and extending from 32° 41′ to 32° 56′ N. and 71° 42′ to 73° E. It was known to the ancient historians as the Makhiālah hills and the Koh-i-Jūd. The main chain commences in the lofty hill of Chail, 3,701 feet above sea-level, which is formed by the convergence of three spurs cropping up from the Jhelum river, and divided from the Himālayan outliers only by the intervening river valley. The most northern of these spurs rises abruptly from the river bank at Sultānpur, and runs nearly parallel with the Jhelum at a distance of 25 miles, till it joins the main chain after a course of 40 miles. It bears the local name of the Nīli hills. The second spur, known as the Rohtās range, runs half-way between the Nīli hills and the river, parallel with both. It contains the fort of Rohtās, and the hill of Tilla in Jhelum District, 3,242 feet above sea-level. The third or Pabbi spur rises south of the Jhelum, dips for a while on approaching the river valley, and rises once more on the northern bank till it finally unites with the two other chains in the central peak of Chail. Thence the united range runs westward in two parallel ridges, till it culminates in the Sakesar hill, on which is the sanitarium for the Districts of Shāhpur, Attock, and Miānwāli, 5,010 feet above sea-level. Between these lines of hills, and topped by their highest summits, lies an elevated and fertile table-land, picturesquely intersected by ravines and peaks. In the midst nestles the beautiful lake of Kallar Kahār. The streams which take their rise in the table-land, however, become brackish before reaching the lowlands. From Jhelum District the Salt Range stretches into Shāhpur and Miānwāli. The long spur which projects into Shāhpur terminates in the hill of Sakesar, and comprises a number of separate rock-bound alluvial basins, the largest of which, the Sūn and Khabbakki

valleys, occupy the northern half, while the south consists of a broken country, cut up into tiny glens and ravines by a network of limestone ridges and connecting spurs. In the northern portion of the range, the drainage gathers into small lakes, and trees stud the face of the country; but southward, the streams flow through barren and stony gorges, interspersed with detached masses of rock, and covered with the stunted alkaline plants which grow on soil impregnated with salt. The Miānwāli portion of the range runs northwestward towards the Indus, which it meets at Māri, opposite Kālābāgh, and rising again on the western side is continued in the Khattak-Maidāni hills. The scenery throughout the range is rugged and often sublime, but wanting in softness and beauty. In many parts it becomes simply barren and uninviting.

The beds of salt, from which the range derives its name, occur in the shape of solid rock on the slopes of this table-land, and form the largest known deposits in the world. The mineral is quarried at the MAYO MINES, in the neighbourhood of the village of Khewra, a few miles north-east of Pind Dādan Khān in Jhelum District, at NŪRPUR in Jhelum, at WĀRCHA in Shāhpur, and at KĀLĀBĀGH in Miānwāli District. Coal also occurs in the Salt Range both in oolite and Tertiary strata: the former at Kālābāgh, and the latter between Jalālpur and Pind Dādan Khān. It is of inferior quality, however, consisting of a brown lignite, difficult to burn and yielding a large proportion of ash. Besides salt and coal, other valuable minerals occur in these hills.

Few areas in India are of greater geological interest than the Salt Range, the sedimentary rocks in which have yielded fossils ranging from Cambrian to Tertiary, while the deposits of rock-salt constitute one of the most difficult problems with which the Indian geologist has to deal. A striking feature of the sedimentary beds is their marked variation in different parts of the range, and no single section affords a representative sequence. The following list of formations is compiled from a large number of sections seen in different localities:—

Conglomerates and sandstones (Siwālik) . . . . Sandstone and red clay (Nāhan or lower Siwālik) . . .	Upper Tertiary.
UNCONFORMITY.	
Nummulitic [illegible] shale, sandstone, and coal	Lower Tertiary.
UNCONFORMITY.	
Whitish sandstone	Lower Cretaceous.
Dark shales and limestone, with ammonites and belemnites .	Jurassic.
UNCONFORMITY.	
Limestone with ceratites (upper ceratite limestone) . . Sandstone do. (ceratite sandstone) . . . Marl do. (ceratite marl) . . . Limestone do. (lower ceratite limestone) . .	Lower Trias.

Limestone with ammonites and brachiopods (Chidru group, or upper Productus limestone)	Upper Permian.
Limestone with Xenaspis and brachiopods (Virgal group, or middle Productus limestone)	
Sandstone with brachiopods (Amb group, or lower Productus beds)	
Lavender clay	Lower Permian, perhaps, in part, Upper Carboniferous.
Speckled sandstone	
Olive sandstone	
Boulder-bed	
UNCONFORMITY.	
Sandstone with pseudomorphs after salt (Salt pseudomorph zone)	Cambrian.
Magnesian sandstone	
Shales with *obolus* and trilobites	
Purple sandstone	Age unknown.
Red salt marl, with rock-salt and gypsum	

[The following publications of the Geological Survey of India may be consulted: *Records*, vols. xix, pt. ii; xxiv, pts. i and iv; xxv, pt. i; *Memoirs*, vols. xiv, xvii, pt. ii; *Palaeontologia Indica*, Series xiii, vols. i, pts. i–vii; iv, pts. i, ii; and New Series i, pt. i. Also *Neues Jahrbuch für Mineralogie, &c.*, 1896, Bd. ii, p. 61; and 1901, Bd. xiv, p. 369.]

Salt-Water Lake.—Swamp in the head-quarters subdivision of the District of the Twenty-four Parganas, Bengal, situated about 5 miles east of Calcutta, between 22° 28′ and 22° 36′ N. and 88° 23′ and 88° 28′ E., with an area of about 30 square miles. This is a low depression, which is being gradually filled by silt deposits of the tidal channels that intersect it. It serves as a cesspool for the sewage of Calcutta. A portion of the lake at Dhāpa is being gradually reclaimed by the deposit of street refuse, which is conveyed out daily from Calcutta by a municipal railway.

Salūmbar.—Chief town of an estate of the same name in the State of Udaipur, Rājputāna, situated in 24° 9′ N. and 74° 3′ E., about 40 miles south-east of Udaipur city. Population (1901), 4,692. A masonry wall surrounds the town, which is protected on the north by lofty and picturesque hills; and one of these, immediately overlooking the place, is surmounted by a small fort and outworks. The palace of the Rāwat is on the edge of a lake, and the scenery is altogether very charming. The estate, which consists of the town and 237 villages, yields an income of about Rs. 80,000 and pays no tribute. The Rāwat of Salūmbar is the head of the Chondāwat family of the Sesodia Rājputs, and ranks fourth among the nobles of Mewār. Chonda was the eldest son of Rānā Lākhā, and in 1398 surrendered his right to the Mewār *gaddi* in favour of his younger brother, Mokal. For many years the Rāwats of Salūmbar were the hereditary ministers (*bhānjgaria*) of the State, and to this day their symbol, the lance, is always superadded to that of the Mahārānā on all deeds of grant.

Sālūr Tahsīl.—*Tahsīl* in Vizagapatam District, Madras, lying between 18° 19′ and 18° 46′ N. and 83° 3′ and 83° 22′ E., at the foot of the Eastern Ghāts and traversed by the road from Vizianagram to Jeypore. It lies partly within the Agency tract, the area of the ordinary portion being 180, and of the Agency part 200 square miles: total, 380 square miles. The population in 1901 was 97,843, compared with 88,836 in 1891. The *tahsīl* contains one town, SĀLŪR (population, 16,239), the head-quarters; and 199 villages. The Agency population consists chiefly of Khonds and other hill tribes. The demand for land revenue and cesses in 1903–4 was Rs. 48,500.

Sālūr Town.—Head-quarters of the *tahsīl* of the same name in Vizagapatam District, Madras, situated in 18° 31′ N. and 83° 13′ E., at the foot of the Ghāts on the road from the Jeypore estate to Vizianagram. Population (1901), 16,239.

Salween District (Burmese, *Thanlwin*).—A hill District in the extreme north of the Tenasserim Division of Lower Burma, lying between 17° 17′ and 18° 41′ N. and 96° 58′ and 97° 46′ E., with an area of 2,666 square miles. It includes the whole of the country between the Salween on the east and the Paunglaung range (the watershed between the Sittang and the Yunzalin and Bilin) on the west. To the north of the District lies Karenni; to the west Toungoo District; to the south and south-east Thaton District; and to the east, on the farther side of the Salween, the province of Chiengma in Northern Siam. The District is about 120 miles long by 40 to 50 miles broad in a direct line. Its distinctive features are the long narrow valleys into which it is divided by ranges of hills, having a general direction of north-north-west and south-south-east, with peaks rising to 3,000 and 5,000 feet. The whole country is, in point of fact, a wilderness of mountains, and the valleys may more properly be described as long winding gorges, in which the view is naturally very limited. The scenery in the Yunzalin valley is extremely picturesque; but, owing to the nature of the country, it is confined to short stretches of river and hill, a picture that is repeated with monotonous iteration throughout the greater part of the valley. The pine forests that clothe the hills farther north, however, afford some variation to the otherwise tedious beauty of the scenery in general.

Physical aspects.

The country is drained by three main rivers: the SALWEEN, which gives the District its name, to the east; the Yunzalin, one of the Salween's affluents, in the centre; and the Bilin to the west—all fed by innumerable mountain torrents and partaking somewhat of the nature of their turbulent tributaries. They all flow in a south-south-easterly direction. The Yunzalin, which divides the District into two halves east and west, is navigable by country boats as far as Papun, the

head-quarters of the District; the Bilin as far as Pawota, near the south-west corner of the District; the Salween, which forms the eastern border, can be navigated, notwithstanding many rapids, by native craft throughout as much of its course as lies within the District except at the Hatgyi (the 'great rapids'), a series of formidable falls which bar the passage a little below the place where the Thaungyin, the north-eastern boundary of Thaton District, flows into it from the east. The Bilin is not an affluent of the Salween, but enters the sea in Thaton District.

Salween is essentially a hill tract, and is traversed in a general north and south direction by ranges of hills. The country is composed of several groups of beds of Palaeozoic age, together with metamorphic rocks, the whole traversed by granite and elvan dikes in which gneiss, limestone, and hard calcareous sandstone are associated. The last two are probably of the Moulmein group and of Carboniferous age.

A dense mass of tropical forest trees covers the lower or southern portions of the narrow river basins, becoming interspersed higher up the valleys and on the hill-slopes with mixed forest trees, including teak, *padauk* (*Pterocarpus indicus*), *pyingado* (*Xylia dolabriformis*), and *Albizzia Lebbek*, with species of oak, fig, bamboo, &c. Orchids and ferns abound on the trees and rocks. In the northern part of the District large forests of pine occur at an elevation of 2,000 feet and upwards. The species met with are *Pinus Khasya* and *Pinus Merkusii*.

The District abounds in wild animals, principally deer and wild hog. Tigers and leopards are numerous, and bears are also frequently met with, but large game of other kinds is not common.

The climate in the valleys, generally speaking, is moist, hot, and unhealthy, and has a peculiarly enervating effect on persons not acclimatized to it. In the upper part of the Yunzalin valley, however, at an elevation of 2,000 feet and upwards, in the pine-forest tract, pleasanter and healthier conditions prevail, though even there the climate leaves much to be desired. In the north the thermometer falls to freezing-point at night in the month of January. At Papun the temperature in the cold season ranges between 65° and 80°; in the hot season, between 75° and 97°.

The rainfall, which averages 114 inches annually, is evenly distributed throughout the District. There is practically no rain during the first four and the last two months of the year.

History.

Very little is known of the early history of Salween. Tradition asserts that the eastern portion of the country was formerly inhabited by Yun (Lao) Shans, who have given their name to the Yunzalin river. Most of these are said to have been brought away by Alaungpayā on his return from the

invasion of Siam, and to have settled in the neighbourhood of Syriam. The Karens appear to have afterwards occupied and obtained possession of the country, but were some time later subjugated by the chief of Chiengmai, a state at that time independent of Siam. The remains of extensive fortifications, said to have been constructed by the Shans, and probably of this period, are still to be seen in the District. After the second Burmese War the country became British territory and was included in the old Shwegyin District, but remained for some years in a very disturbed state. A Karen, who called himself a *Minlaung* ('the incarnation of a prince'), collected around him a number of adventurers from the neighbouring Shan and Karen areas, and reduced the tract to complete subjection. This outlaw and his followers, however, did not remain long in the country. They were driven out by a mixed British force of troops and police, aided by friendly Karens, and were obliged to take refuge in Chiengmai. Disturbances recommenced in 1867; a chief named Di Pa attacked and plundered several villages, and threatened Papun, and dacoities continued for some time. For the better administration of the tract it was accordingly separated from Shwegyin in 1872, and placed in charge of an officer immediately under the Commissioner of Tenasserim; and from this date the area ceased to be styled the Yunzalin (*Rwonzaleng*) subdivision of Shwegyin District, and became the Salween District, with Papun as its head-quarters.

Population.

The population in 1901 was 37,837, distributed in 246 villages, the head-quarters being at PAPUN VILLAGE. Its numbers have been increasing steadily during the past thirty years. The total was 26,117 in 1872; 30,009 in 1881; and 31,439 in 1891. The District forms a single township called PAPUN. Of the total population, 23,500 (or 62 per cent.) are Animists and 13,800 (or nearly 37 per cent.) Buddhists. The majority of the Karen population are animistic in their belief, but the number professing Buddhism is increasing yearly. Karen is the prevailing language.

The Karens form the most important racial element, numbering 33,400. The Shans come next with 2,816, while the Burman total is only 953. The other races are for the most part Taungthus and Talaings. There are a few natives of India. About 86 per cent. of the total population were engaged in or dependent upon agriculture in 1901. Of this number, nearly seven-eighths were supported by *taungya* cultivation alone.

In 1901 native Christians numbered 174, of whom 133 were Baptists, chiefly converted Karens. These latter possess a chapel at Papun, and support a native pastor.

The soil is uniformly poor, except here and there in the Bilin and Yunzalin valleys, where loamy alluvial deposits have been formed.

Agriculture.

The rainfall is always ample and seasonable, but the extremely hilly nature of the country and its poor soil afford little scope for agricultural development. Owing to the conformation of the surface, *taungya* cultivation naturally takes the first place. *Le* or 'wet' rice cultivation is carried on in the small area of low-lying plain land in the valleys. It is mostly in the form of terraced fields, flooded by means of drains connected with hill streams or torrents, which, dependent on the rainfall, can supply the necessary water for this kind of cultivation only during the monsoon period. Areca palms are grown in sheltered spots between the lesser hill spurs.

In 1903–4 only 36 square miles were cultivated. Rice is the staple grain, occupying 31 square miles of the total. Other food-crops are raised in such small quantities as scarcely to deserve mention. A moderate quantity of sesamum is grown on old *taungyas*, but details of the area under this crop are not available. The greater part of the oilseed is exported in bulk, though some of it passes through the local oil-mills (*si-zon*). Betel-nuts are also produced for export in fairly large quantities, on an area of 3,000 acres in 1903–4. Nothing else is grown, save a little tobacco and sugar-cane for local consumption.

Cultivation has steadily increased year by year, but it cannot be expected in a rugged country like Salween to attain anything like the important position it holds in other Districts. The increase in the production of rice is chiefly due to the demands of an increasing population. Improvement in quality by selection of seed is not understood by the cultivators. No loans for land improvement have been applied for or made, but advances to agriculturists for the extension of cultivation have from time to time been granted. Droughts, floods, and insect plagues have never been experienced in the District; but cattle-disease occurs yearly, though not to any serious extent.

There is no cattle or pony breeding; and although elephants, buffaloes, and bullocks are largely used, they are all imported from elsewhere, chiefly from Northern Siam. All overland transport is effected by means of elephants and pack-bullocks. Ponies and mules are scarce and rarely used.

The forests are of three classes. In the lowlands the ground is covered with tropical forests, while higher up the valleys and on the hills the slopes are clad with mixed and pine forests.

Forests.

The timber contained in them includes teak, *pyingado* (*Xylia dolabriformis*), *pyinma* (*Lagerstroemia Flos Reginae*), *padauk*

(*Pterocarpus indicus*), *thingan* (*Hopea odorata*), and a number of other trees. Bamboos are plentiful, and various kinds of cane are found. 'Reserved' forests cover 128 square miles, of which the greater part is under measures of protection from fire. No forests have been notified as 'protected,' but the 'unclassed' forests amount to approximately 2,000 square miles. Teak plantations in an area of $11\frac{3}{4}$ acres were started in the year 1876, and in a few of these *padauk* has been mixed with young teak with fair success. The receipts from forests in 1903-4 amounted to 1·6 lakhs. All the timber extracted from the District is floated down the Salween river to Moulmein.

Minerals.

Lead and iron ore have been discovered in various places, but much of the former could not be profitably extracted unless a great demand for the metal were to arise in the immediate neighbourhood of the workings. Veins of lead have also been found in more accessible parts of the District. The ore is said to contain about 14 oz. of silver to a ton of metallic lead. An attempt was once made to exploit a vein discovered a short distance up the Kanyindon, a tributary of the Yunzalin; but though much valuable machinery was imported, the work was abandoned very soon after operations had commenced. The iron ore occurring in the District is of little or no value. Gold-dust is found in the Mewaing creek, a tributary of the Bilin, flowing into it from the west. The inhabitants of the Shan village of Mewaing, who are mostly petty shopkeepers, wash for gold in the dry season, when the auriferous mudbanks are exposed. The gold occurs in diminutive scales, and the result of a season's washing is said to be from one to two ounces of gold-dust for each worker.

Trade and communications.

Manufactures are almost non-existent. Cotton-weaving by hand is carried on as a source of income on a small scale, for the most part by Shan and Talaing women. The industry is universal among the Karens, whose women supply the greater part of the requirements of their household in the way of clothing, but they do not manufacture for sale. Mats are woven by both men and women for domestic use. Oil is expressed from sesamum seed in a few oil-mills, the produce being disposed of in the local market. The Karens are permitted to manufacture liquor in small quantities for their own consumption. There are four licensed distilleries for the manufacture of country spirit for sale.

In addition to traffic with other portions of Burma, there is a steady trade with Karenni and Siam, over three main routes: the Dagwin route, leading due east from Papun across the Salween river into Siam; the Kyaukhnyat route, somewhat more to the north;

and the Kawludo route, farther north again. Both the latter routes communicate with Karenni as well as with Siam. The chief imports are cattle and treasure. Clothing, jewellery, tea, &c., are also brought in, but in small quantities. About 80 per cent. of the imports come from Siam. The chief exports are silk and cotton piece-goods, wearing apparel, jewellery, betel-nuts, manufactured iron, petroleum, salt, and provisions, as well as silver (rupees) and gold (Chinese). Siam receives 60 per cent. of what is sent out, and Karenni the rest.

Ninety per cent. of the imports from Siam and 80 per cent. of the exports to that country are carried over the Dagwin route, while the remainder go through Kyaukhnyat. The roads on both these routes are rough paths crossing extremely hilly country, and as a rule only elephants and bullocks are employed as transport. An improved bridle-path between Papun and Dagwin is, however, under construction.

The exports and imports to Karenni are divided between the land and river routes. The former passes close to Kawludo, a police post in the north of the District; the latter commences at Kyaukhnyat, at which place goods for Karenni, carried from Papun on elephants or bullocks, are transhipped into boats which proceed up the Salween river to their destination. With the exception of betel-nuts, nearly all goods for export are brought to Papun by *boat* from Moulmein. There are trade registration stations at Dagwin, Kyaukhnyat, and Kawludo. The total value of the merchandise imported from Siam and Karenni in 1903–4 was $46\frac{1}{2}$ lakhs, and the total value of that exported $2\frac{1}{2}$ lakhs.

The chief lines of road connect Papun, the head-quarters of the District, with Bilin in Thaton District (71 miles), Kamamaung on the Salween (53 miles), Dagwin on the Salween (28 miles), Kyaukhnyat, Kawludo, Lomati, and Mewaing within the limits of the District, and Shwegyin in Toungoo District. All these roads were mere jungle tracks till very recently, but are now being improved. The Papun-Bilin road is to be a cart-road, the others will be bridle-paths.

The waterways are the Salween, the Yunzalin, and the Bilin rivers. On the first, intercourse between Kyaukhnyat and the Karenni country on the north is maintained by means of country boats. The Yunzalin is the chief means of communication between Papun and Moulmein, and nine-tenths of the goods brought to Papun for local consumption or for export are carried by boat. The weekly mails are also conveyed by the same means. The Yunzalin is not at present navigable by launches, but might without great difficulty be made so during four to six months in the year. The Bilin river is an important waterway, and is the channel for most of the im-

port and export trade of the western areas of the District. [illegible] are ferries across the Salween at Dagwin and Kyaukhnyat, and others on the Yunzalin and Bilin rivers.

Administration.

The District Superintendent of police is also the Deputy-Commissioner, and carries on the administration of the District with the assistance of a township officer. There are six *thugyis* of circles. Sections 2 to 13 of the Lower Burma Village Act have not been extended to Salween; and consequently the village headmen, who are here called *kyedangyis*, exercise no magisterial powers and have very little authority in the villages under them. The District forms a subdivision of the Martaban Public Works division, and is included in the West Salween Forest division, which also comprises a portion of Thaton District.

Salween forms part of the Tenasserim civil and sessions division, while the Deputy-Commissioner is *ex-officio* District Judge. Civil work is light, and the District is on the whole remarkably free from crime. Cases of petty theft are confined to Papun and the large villages, but the culprits are seldom Karens, who are not generally given to petty thieving. Elephant-stealing, traffic in stolen elephants, and the illicit extraction and sale of teak logs, however, are forms of crime that have a great attraction for the Karen.

No thorough survey has yet been undertaken, and somewhat primitive methods of conducting revenue work prevail. Land is assessed according to the nature of the cultivation as well as the quality of the soil. The rates for rice land are Rs. 1-8, R. 1, and 8 annas per acre, according to the quality of the soil and other conditions prevailing in the different parts of the District. Garden land and *kaing* are uniformly assessed at Rs. 2 per acre. *Taungya* is assessed at 8 annas per *da* or per man, and for revenue purposes a man is estimated to be capable of working 2 acres of *taungya* land. The aggregate number of holdings amounts to 9,650, and the average extent of each holding is 2 acres. No revision of assessments has been made for over ten years.

The following table shows, in thousands of rupees, the collections of land revenue and total revenue since 1880-1:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	18	11	20	24
Total revenue . .	29	27	37	54

The income of the District cess fund for the maintenance of communications and other local necessities amounted in 1903-4 to Rs. 8,000. Public works absorbed Rs. 1,000 of this total, and District post charges a similar amount. There are no municipalities.

In police work the District Superintendent is assisted by an Assistant Superintendent and two inspectors, all of whom are stationed at head-quarters. There are 4 head constables, 9 sergeants, 102 constables, and 10 *yazawut-gaungs* (rural policemen), as well as a military police force of 125, including 2 native officers. The armed police are posted in eight stations.

The District possesses no jail. All prisoners but those sentenced to short terms of imprisonment are sent to the Moulmein jail. The short-term prisoners detained at Papun are confined in the police lock-up.

The standard of education in Salween is lower than anywhere else in the Province except in the Chin Hills. In 1901 the proportion of persons able to read and write was only 7·2 per cent. (5·1 males and 0·56 females). A school has been opened by the American Baptist Mission at Papun. It is under a Karen teacher, and is attended by about 40 boys and girls. Another small school has been started by the same mission in Bwado, a small Karen village south-east of Papun. There is also a small elementary school in Papun for Buddhist children, who are taught in the vernacular only. The Buddhist monks, as elsewhere in Burma, impart such education as is not given in the missionary and lay schools.

The hospital at Papun is the only one in the District. It has accommodation for 9 in-patients. During 1903 the number of in-patients treated was 113, and that of out-patients 1,808, while the number of operations performed was 44. Its income consisted of a grant from Provincial funds of Rs. 3,400, and Rs. 170 from subscriptions.

Vaccination is compulsory only in Papun. In 1903–4 the number of persons successfully vaccinated was 583, representing 15 per 1,000 of population.

Salween River (called *Thanlwin* by the Burmese and *Nam Kong* by the Shans).—The most important river of Burma after the Irrawaddy. Like its [illegible] ream, it flows generally from north to south. So far as is known, the springs of this headstrong and turbulent waterway, which has been described as the most uncompromising natural boundary in the world, are situated at about the 32nd or 33rd parallel of latitude in unexplored country to the east of Tibet, far north of the sources of the Irrawaddy; and at about the 27th parallel of latitude only a comparatively narrow watershed separates its channel from that of the N'maikha. It is not, however, till it has penetrated three degrees farther south that it enters British territory. Thence flowing southwards and ploughing between steep hills, it bisects the Shan States and Karenni, receiving, among other tributaries from both British and foreign territory, the Nam Pang, the Nam Teng, and the